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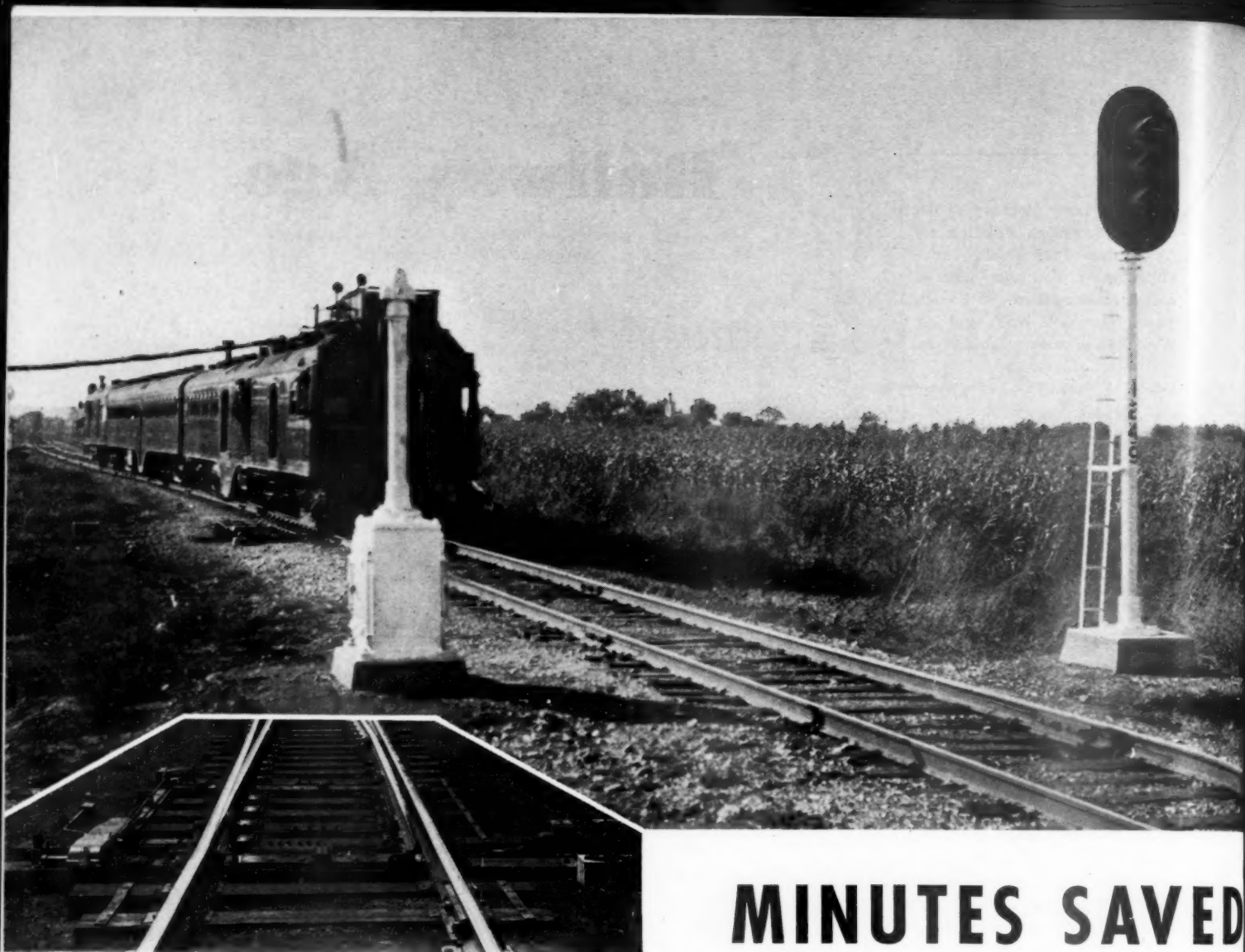
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MINUTES SAVED by "UNION" MECHANICAL FACING POINT LOCKS for Spring Switches

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RAILWAY AGE

Fiddling with Railroad Problem

In spite of all the talk about the railroad problem in Washington and elsewhere, no indication has yet been given that Congress will enact legislation at its present session which will deal realistically with the basic difficulties of the railroads. It may deal to some degree with symptoms—that is, it may make some changes in bankruptcy procedure to enable the railroads to go broke more easily and with less publicity; and a few other timid measures of mildly helpful nature may be enacted. But, it goes almost without saying that no effective political demand exists to diminish any of the special privileges which organized labor enjoys at the expense of the railroad industry. The most important other handicap of the railroads lies in the fact that they are hog-tied by regulation in the face of constantly increasing subsidies to less regulated competitors. There is as yet no evidence of general public recognition of this fact; and even less evidence of determination by politicians and business leaders to deal realistically with the question of transportation subsidies and regulatory favoritism.

Railroads Reprieved, Not Freed

It apparently follows that the railways are now enjoying nothing more than a reprieve from the death sentence which present government policies impose on them. That reprieve has come, not from any change in attitude by either politics or business, but solely from the increase in traffic which has occurred. A year ago this month the railways as a whole failed by two million dollars to earn even their operating expenses and taxes. In the first six months of 1938 their net operating income was only 70 million dollars, or at an annual rate of return of only two-thirds of one per cent. It was due only to increase in traffic that, instead of earning not much more than this, they earned more than four times as much in the second half of the year, or 302 million dollars. If traffic had remained throughout 1938 at the same low level to which it declined in the first half of last year, by this time government operation of a considerable mileage would have been the only alternative to a cessation of its operation.

And the railways have shown that even with present traffic, and also with present taxation and regulation, the present subsidization of their rivals and the present wages and working conditions of their employees, the

railroad industry as a whole can earn only about 2½ per cent on its investment. If traffic should decline again to the level of the first half of 1938, the railroads would again very quickly approach the brink of government ownership—because their cash resources are depleted and even now they are not earning enough to enable them to catch up on last year's under-maintenance and to renew their equipment as it wears out.

Nothing will do the railroads any lasting good excepting a permanent increase in the difference between their gross earnings, on the one hand, and their operating expenses and taxes, on the other hand. The sole measure of the value of any proposal to "help" the railroads is the extent to which it will widen this margin of net earnings, and none of the proposals having apparently a real chance of adoption has, according to that measure, much value.

The American people probably are being given by the present increase in railway earnings due to increase in traffic, their last opportunity to solve the difficulties of the railroads and thus avoid government ownership. This may sound like an alarmist statement; but it is an inescapable conclusion from the facts and should be recognized as such by every one familiar with the facts. If and when another recession like that of 1937-1938 comes, unless something of importance is done now, the opportunity for constructive action will have disappeared. The physical and cash position of the railroads is such that not many of them could weather another such period as the first half of 1938.

And yet Congress and the American people temporize and vainly hope to "save" the railroads by a few timid legislative gestures which will not correct a single one of their basic difficulties. With politicians, business and the American public generally in this lackadaisical frame of mind in the face of impending disaster, those knowing the facts of the railway situation may well be asking themselves what changes government ownership of railways may bring—what may be its effects on American business and the American people.

Railroads the Main Defense Against Socialism

The railroads have long been a dam behind which most of the tendencies to socialism in this country have been impounded. The most regulated industry, they

have been the most vulnerable to political raids from which less regulated industries have been comparatively free. At the same time, the railroads have always been and still are the precedent-creators for government regulation of all industry; and amoral business and politics now appear to be willing in deed, if not in thought, to allow the railroads to slip into socialized ownership. When and if this happens, the forces of predatory politics which are the immediate cause of the debacle will not have been placated a bit. Catering to these predatory forces has proved to be a sure means of getting or holding political office. Hence it is inevitable, if once the railroads go by the board, that political depredations will immediately shift to some other large industry or industries. Our guess is that the next most likely victims are the remaining private companies connected with the transportation business, because in the field of transportation the something-at-somebody-else's-expense idea has become an ingrained political habit.

Predatory politics in transportation has its source in several large and influential political groups in this country which have been held together by the favors politicians have secured for them at other people's expense. Among these blocs is that formed by the advocates of inland waterways. Another such group is composed of highway construction enthusiasts—mostly from thinly-populated states which get much more out of federal highway aid than they pay in.

With the railroads owned by the government, further hand-outs at the railroads' expense would be a subject for political attack on the party in power—just as deficits in the post office department are. The groups which have been getting these political favors are not going to disband, however, simply because the railroads go into government ownership. Hence, in order to appease them and retain their support the politicians will have to cast about to find some business still in private ownership which can be preyed upon politically

—some other industry to take the place on the altar that the railroads have so long occupied.

What Industry Will Be the Next Victim?

These predatory groups will probably not get very much below-cost transportation from government-owned railways. They probably will not get it on the inland waterways either because, by the time the government takes over the railroads, the politicians will begin quickly to understand the sound economics of levying tolls on the waterways. (In countries where railways are government-owned, experience has demonstrated that competitors are usually either taxed out of existence or are specifically prohibited from competition.)

With transportation-at-other-peoples'-expense cut off by the railroads and the waterways; and long-distance for-hire trucking probably prohibited altogether by law (as it usually is when railways are government-owned)—where will the politically-strong transportation dolegetters turn? Where else will there be for them to turn, except to the industries which supply transportation equipment and fuel?

The Nazi government in Germany has already turned to the production of a low-priced automobile—thus indicating that the railroad industry is not the only one which can be subjected to socialistic competition. We already have "yard-stick" electric power in this country. How long will it be before the politicians get around to producing "yard-stick" gasoline?

Private ownership of railways in this country, if it disappears, will be greatly missed by some other industries. Those who live and thrive by predatory politics must have some large private industry or industries to attack; and with the railroads in the hands of the government, some other large industry or industries will have to be victimized in order to enable these predatory political forces to get a living.

Ending of Favors to Competitors Is Sole Cure for Railroad Ills

If the railroads were now handling the traffic which has been diverted to air, water and highway transportation solely because the greater part of the actual cost of such transportation is being paid by the taxpayers, the traffic and revenues of the railroads would be so increased that we would have no railroad problem.

While a part of the decrease in the volume of traffic handled by the railroads has been due to the low level of business during the depression, even more responsible has been the loss of traffic by the railroads to competing water, highway and air transportation—competing transportation which exists only because it is subsidized by the taxpayers' money.

To the extent that the present low level of business is responsible, the financial condition of the roads will improve as business improves and traffic and revenues increase.

The railroad problem will never be solved as long as water, highway and air transportation, which competes

with the railroads, is subsidized and is thereby enabled to take away traffic which belongs to the railroads—traffic which the railroads can handle more efficiently and more cheaply when all costs are considered.

These costs, of course, refer to ultimate costs, whether they be borne by the shipper who engages the services of the carrier or by the taxpayer, from whose contributions the government has built the highways and improved the waterways.

Doubtless the time will come when the burden of taxation will be so heavy that there will be an irresistible demand that those who use a carrier shall pay the entire cost of the service rendered, a proportionate share of the cost of construction and maintenance properly assignable. Whether or not such a policy is adopted, it is obvious that, from the viewpoint both of sound economics and ordinary justice, all costs should be taken into consideration.

From an Article by President D. B. Robertson of the B. of L. F. & E. in the Current B. of L. F. & E. Magazine

What Will the Traffic Bear?—1

In view of the railroads' continuing losses of their most highly remunerative traffic to the trucks, might they not profitably re-examine their pricing structure? Railroad rates are based presumably on "what the traffic will bear"—but in fact present-day rates are based upon conditions of forty years ago. It might be worth while to transpose the words of this maxim into a question: "What *will* the traffic bear?"; and determine "what the traffic will bear" under the greatly changed and highly competitive conditions which exist today.

Freight rates are assessed by weight, but it is space in the box car, and, primarily today, in the truck body that largely determines the maximum which the railroads reasonably may expect to receive for their services. Congestion in the city streets and upon the highways lessens the railroads' competition from the truck.

In the inauguration of this *series of queries* into the railroad pricing structure we shall begin with just a few simple illustrations of what appears to be the incongruous in their methods of pricing.

For example:

Men's clothing and woolen piece goods weigh more than 20 pounds per cubic foot and are rated first class.

Anchovies, caviar, and other canned goods weigh more than 20 pounds per cubic foot and are rated fourth class.

The great part of glassware weighs 10 pounds or less per cubic foot and is rated third class.

The average common and contract carrier motor truck unit has a cubical displacement of more than 1,000 cubic feet and can carry a minimum load of 20,000 pounds of traffic weighing 20 pounds or more per cubic foot. Approximately 75 per cent of truck mileage is under load and only 25 per cent of it is run empty.

Clothing, woolen piece goods, anchovies and other canned foods will load for a minimum of 20,000 pounds per truck, while the glassware referred to will load not more than 10,000 pounds per truck.

Based upon these facts and current freight rates, a truck transporting these commodities will earn

the amounts for 200 and 400 mile round trips shown in the accompanying table.

Here we have truck-load earnings ranging from \$51 to \$214 for the identical round-trip mileage of 200 miles and from \$67 to \$294 for the identical round-trip mileage of 400 miles. The truck-load earnings on men's clothing and woolens are almost three times as great as the earnings on glassware. The highest truck-load earnings shown are more than four times as much as the lowest.

Obviously a trucking company would not usually be able to haul a commodity like clothing in both directions, but in actual practice the truckers select the most highly remunerative of the available traffic moving in each direction.

Common carrier truck costs for 1937 averaged between 15 and 20 cents per mile and approximately 15 cents per hundred pounds for pick-up and delivery, according to the best estimates obtainable. If we accept the maximum cost figure, it would cost \$85 to make a 200-mile round-trip when handling men's clothing, woolen piece goods and canned goods, and \$62.50 when handling glassware and \$125.00 and \$102.50 respectively for a 400-mile round-trip. A truck loaded with clothing in the Southwest will earn 140 per cent profit on a 200-mile round-trip. A truck loaded with glassware in the North will lose 20 per cent on a 200-mile round-trip and 35 per cent on a 400-mile round-trip. Probably there is not as much as 10 per cent difference in the truck operating costs between any of the areas shown in the accompanying table. Due to the congestion in the cities and on the highways in the North and East costs are higher, as a rule, than elsewhere but truck earnings are lowest in this area.

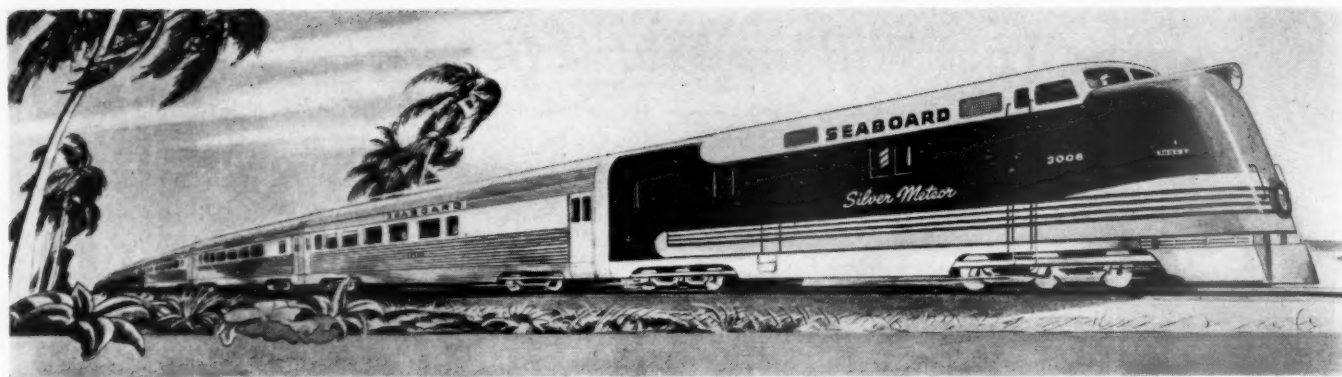
If you were a truck operator, which of these commodities would you select? Obviously, you would select the highest-rated and heaviest-loading. The illustrations given are not exceptional—as we shall demonstrate in following issues.

From a study of actual truck operating costs, it appears that such costs are seldom lower than efficiently co-ordinated pick-up and delivery and rail costs for distances beyond 150 miles. So—rates based on costs ought to put back on the rails the great part of all traffic moving over 150 miles; and might well give the railroads a better opportunity to attract traffic within the 150-mile radius.

[This is the first installment in a series of pertinent questions on present-day pricing practices. Installment No. 2 will be published next week.]

Rate Territory	Men's Clothing and Woolens		Anchovies, caviar and other canned goods		Glassware	
	100*	200*	100*	200*	100*	200*
Official (North of the Ohio and east of the Mississippi rivers, also Virginia)	\$146	\$192	\$80	\$106	\$51	\$67
Southern (South of the Ohio and east of the Mississippi rivers)	200	268	110	148	70	94
Western Trunk Line, Zone 1. (West of the Mississippi and east and north of the Missouri river)	172	234	94	128	60	82
Western Trunk Line, Zone 2. (Kansas, southern Missouri, Nebraska, Minnesota and eastern part of Dakotas)	196	268	108	148	69	94
Western Trunk Line, Zone 3 and Southwestern. (All remaining territory east of Rocky Mountains and west of Mississippi river)	214	294	118	162	75	103

* One-way mileage. Multiply by 2 to get total truck-mileage.



Seaboard Air Line Inaugurates "Silver Meteor"

Seats in Budd-built coach train between New York and Florida in great demand

WITH the first trip of the Silver Meteor to Miami, Fla., leaving New York on February 2, the Seaboard Air Line inaugurated a de luxe chair-car service between important eastern cities and the popular winter resort points of the South which is meeting with a markedly favorable public response. The train, built by the Edward G. Budd Manufacturing Company, consists of seven completely air-conditioned cars. It provides reclining chair-car seats for 280 passengers and includes a diner, a tavern and an observation lounge in addition to dressing-room lounges for men and women in each of the three full-length coaches. Between New York and Washington the train is handled by Pennsylvania electric locomotives. Between Washington and the Southern termini it is hauled by a 2,000-hp. Diesel-electric locomotive built by the Electro-Motive Corporation.

The schedule calls for a round trip every three days alternating between New York and Miami, and New York and St. Petersburg, Fla. On the longer run the schedule time is 26½ hours for the 1,389 miles southward and 27 hours for the trip northward. For the St. Petersburg trip the distance is 1,247 miles and the time is 24¾ hours southward and 25 hr. 5 min. northward. At the time of writing the accommodations of the train, southbound, have been completely reserved up to about March 10 for the Miami runs and up to March 1 for the St. Petersburg runs. Full reservations for return trips from Miami have been made up to March 6. With revenue per passenger seat averaging probably better than \$20 a trip, the revenue is running well over \$5,000 per trip, exclusive of dining-car and bar receipts.

Designed especially for this service, the seven-car train of stainless-steel construction has features which make this overnight coach trip an unusually attractive one. The lounges, distinctively styled, are equal in comfort and attractiveness to those customarily associated with sleeping-car travel. Low prices prevail both in the dining car and the tavern. Light lunches and beverages may be had in the latter. In the diner combination breakfast prices range from 50 to 65 cents and luncheons and

dinners from 60 to 75 cents. Reasonable prices also prevail for a la carte service. The attendants include a registered-nurse-stewardess. There is porter service in all passenger sections and pillows are available at 25 cents.

Interior Arrangements of the Cars

All cars are 84 ft. 8 in. in length, coupled, except the observation car which is 84 ft. 10 in. The train consists of—

Car No.

- 1—Baggage-chair car
- 2—60-passenger chair car
- 3—Chair-tavern car
- 4—48-passenger diner
- 5—60-passenger chair car
- 6—60-passenger chair car
- 7—Chair-observation lounge car

There are 280 revenue seats, 120 non-revenue seats in the diner, tavern, observation lounge, and chair-car lounges, and sleeping accommodations for a crew of 14.

The first car has a 26-ft. 2-in. baggage compartment with letter case and drop-leaf desk, and at the rear is a locker for the storage of pillows. The side lining of the baggage compartment is corrugated steel sheets above which on the side ceiling are flat steel sheets and a tempered Masonite top ceiling. The ceiling is painted white, the side walls buff and the hardware black.

Back of the baggage section is the crew's quarters with sleeping accommodations for 12 men in bunks three tiers high. The facilities include a shower bath, toilet and washing facilities, wardrobe and linen lockers. The shower stall is lined with stainless steel and the floor consists of a rubber mat on a wood rack set in a stainless-steel drain pan. The steward has a private state-room with complete toilet and sleeping accommodations. Wall sockets permit a folding type table to serve as an office.

The balance of this car is a 22-passenger chair sec-

tion with a conductor's desk at the forward end and men's and women's toilet rooms at the rear. The color scheme, referred to as the "green car," has a fog blue ceiling with a brown stripe, brown side walls and end doors of a deeper chocolate brown. Window sills are ebony black and roller shades have interior linings of pin stripe beige material. The exterior aluminum finish matches the car exterior. The chair upholstery is a pin stripe pattern of blue-green.

Rubber flooring is used in all the chair-car sections of the train. It is a dark oak in the passageways and under the seats. The aisle has a stripe pattern with in-

Weights of the Cars in the Seaboard Air Line "Silver Meteor"

	Body		Trucks lb.	Total, ready to run, lb.	Revenue load, lb.
	Dry wt., lb.	Ready for service, lb.			
Coach-baggage	69,161	72,911	35,050	107,961	22,900
60-passenger coach ..	66,460	68,130	34,600	102,730	9,000
Coach-tavern	69,911	72,731	34,600	107,331	9,150
Diner	75,312	88,412	35,475	123,887	7,100
Coach-observation ..	63,501	65,171	34,900	100,071	10,802

serts to harmonize with the color scheme. In this car the stripe is a light buff with inserts of sea-foam green. On the partitions at either end are photo murals in stainless-steel frames. Stainless-steel flashing and heater ducts lend a pleasing appearance.

The 61-in. post spacing permits windows wide enough to accommodate two seats each and an excellent view for the passengers. All side passenger windows are double glazed with polished plate glass on the outside and laminated safety plate glass on the inside. The extruded-aluminum sash is fitted with moisture-absorbing cart-ridges to prevent fogging of the inner surfaces.

In the passenger sections throughout the train the interior lining is, in general, Masonite. The flooring consists of cork strips set in the corrugated stainless-steel structural floor, on top of which is a 1-in. thickness of cork which serves as heat and sound insulation.

The design of the continuous closed type bag rack is such that it blends in with the decorative scheme of the car. On the underside of the bag rack are built-in reading lights individually controlled by the occupant of the seat. The general lighting is by recessed ceiling fixtures, in each of which is incorporated a small blue lamp to supply a dim restful light during the late night hours.

All passenger sections are air conditioned with electro-mechanical apparatus and the car bodies are insulated with Stonefelt throughout. The compressor equipment is located beneath the floor of the car and overhead is mounted the combination cooling and heating unit. The conditioned air is distributed by an overhead duct with diffusers. Thermostatically controlled side-wall radiation supplements the overhead heating unit.

The seats, which are rotating and reclining to several positions, have a foam-type rubber cushion which adjusts itself to the position of the back for maximum comfort. These seats have backs of spring construction with hair upholstery, headrest covers, stainless-steel foot rail and upholstered armrests. Table positions are provided at the end facing seats, by means of wall sockets, to accommodate folding type tables which are stored in the locker when not in use.

Adjacent to the equipment and storage lockers are the toilet rooms. These are equipped with wash basins and foot-operated, pressure-fed, double-pan hoppers. The appointments, such as towel racks, light fixtures, mirrors, etc., are of pleasing design and finish, and all exposed piping is chrome plated. Each men's room has a 110-volt a.c. outlet for electric razors, and the women's room has a folding drop seat. Recessed into the women's room is an electric water cooler available from the aisle side with built-in type cup dispenser and waste-cup receptacle. The color scheme of the toilet rooms is beige with a light oyster-gray ceiling. The flooring is an ash-brown rubber tile.

The vestibule at the rear of this car has brown rubber-tile flooring and is equipped with folding type steps which, in the closed position, present the appearance of continuity of the exterior sheathing.

Car No. 2 is a 60-passenger chair car with the vestibule forward and has large men's and women's lounges at opposite ends of the car. Referred to as the "coral car," the color scheme is a ceiling of flesh brown with a coral stripe; the walls are brown, and the end doors coral. The upholstery on alternate seats is a fawn rust pattern with the chevrons pointed upward, and the remaining seats with a coral pencil-stripe pattern upholstery present a pleasing variety of appearance. The ebony-black window sills and beige window shades are the same throughout the train. The center aisle stripe is a Jaspe of red, gold and black, with coral inserts. Against the partition of the women's lounge is a console-type





Interior of One of the 60-Passenger Coaches—The Attractiveness of Comfortable Seats with Individual Reclining Backs Is Enhanced by a Pleasing Variety in the Upholstery Colors and Pattern and by the Decorations

electric water cooler, presenting an attractive setting with the photo mural above.

In all the chair-car sections, there are four table positions provided to accommodate the portable wall-type tables, each of which has a rubber-surface top, aluminum edging, and a folding leg.

The men's lounge room at the forward end of the car has a sofa upholstered with natural light-tan leather. The wash basins and foot-operated dental bowl are India ivory with bright chrome fittings, and the door curtain

is of a cinnamon shade. Both the lounge and annex have beige walls with light oyster-gray ceilings. The rubber flooring is dark oak with a light buff border in the lounge.

The women's lounge at the rear of the car is equipped with a sofa and dressing-table chair upholstered with coral pin-stripe material. The wash basins and dental bowl are India ivory, and the ebony-finished dressing table with built-in facial tissue dispenser has above it an attractively lighted mirror. The color scheme of the



Looking Toward the Bar in the Tavern—The Ceiling Is in Oyster Gray and the Walls in Beige and Rust Brown—The Upholstery Is in Red Hand-Buffed Leather—Drapes Are Striped Red and Gray

The Dining Car Seats 48 Persons at Tables for Four Each — The Walls Are in Olive Gray—The Ceiling Is Sand Relieved by Light Stone and Tuscan Rose



lounge and annex is brown with a lighter flesh ash-brown border in the lounge.

Car No. 3, the chair-tavern car, has a 30-passenger chair section with toilet rooms and vestibule forward and a room for the hostess at the rear. Referred to as the "pink car," this section has an orchid-gray ceiling with a light tuscan-rose stripe, tuscan-rose side walls and end doors of a deeper Indian red. A brown pencil stripe upholstery on alternate seats with a patterned chamois colored material on the others harmonizes with the general color scheme. The center aisle stripe is deep red with flame-colored inserts. The roller curtains are beige.

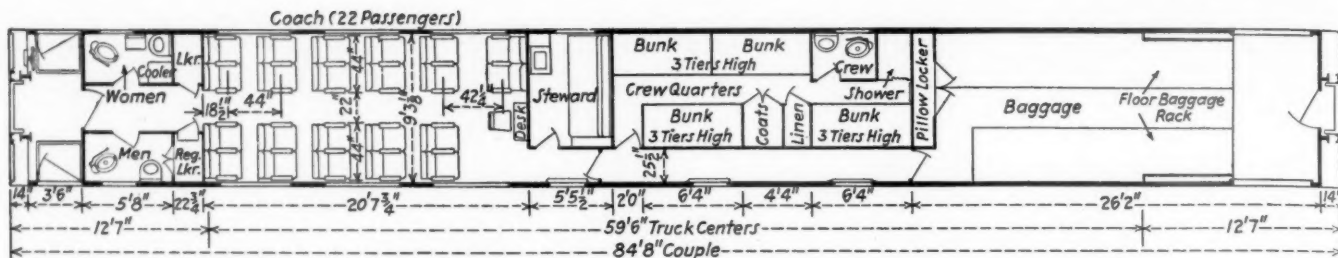
The toilet rooms are beige with light oyster-gray ceilings and ash-brown flooring.

The hostess' room, with sleeping and toilet equipment similar to the steward's room of car No. 1, has beige walls and light oyster-gray ceiling with brown flooring. The removable table in this room will permit the hostess to care for infants and efficiently conduct her other duties.

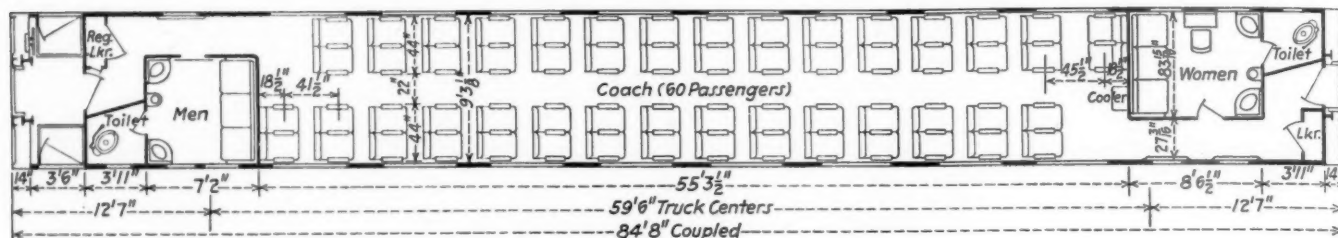
The tavern section has two longitudinal settees, each with three pedestal-type tables. Forward and back of this settee on either side are pairs of facing seats with a table arranged for card playing. The upholstery in the

Looking Toward the Rear of the Observation Lounge—The Ceiling Is Ocean Sand Relieved by Apricot, and the Carpet Dove Taupe on a Mahogany Field

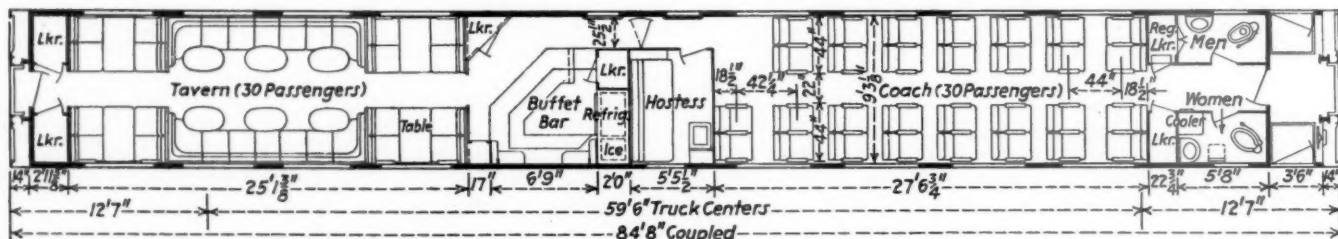




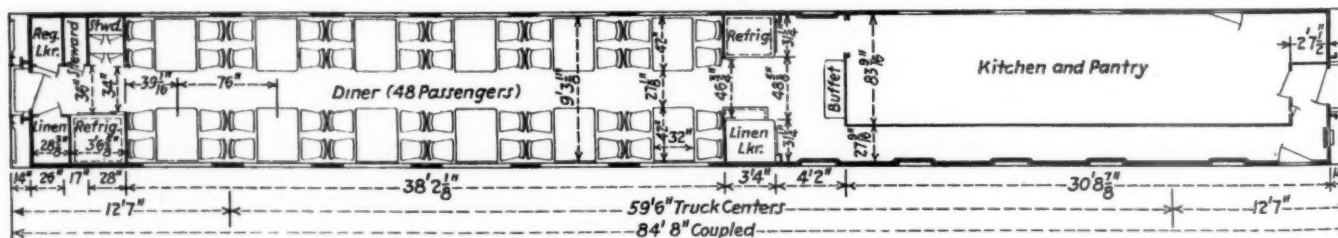
The Baggage-Chair Car Contains a Steward's Room and Sleeping Quarters for a Crew of Twelve



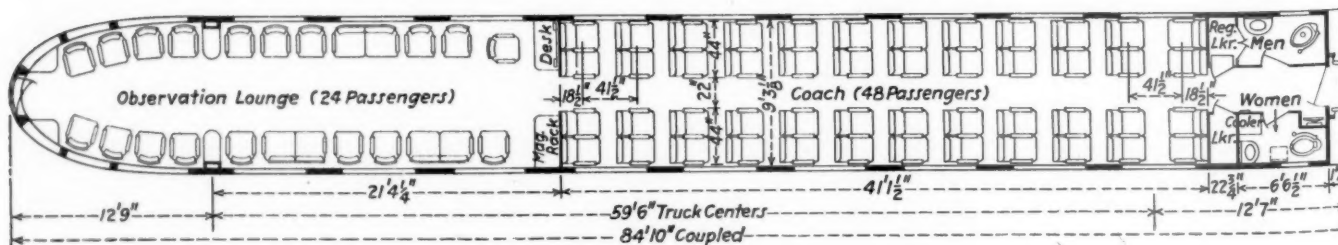
One of the Three Sixty-Passenger Coaches



The Chair-Tavern Car—The Hostess' Room Is in This Car



The Dining Car Has Seats for Forty-Eight



The Chair-Observation-Lounge Car

tavern section is a red hand-buffed leather with a light-tan piping. The rubber-surfaced table tops are robin's-egg blue with a white border. The oval-shaped tables at the settees have fixed aluminum pedestals, and the card-playing tables are wall type with folding leg on the aisle side.

The ceiling of the tavern section is ocean sand with a rust-brown stripe and a light oyster-gray band on either side. The window valance is painted rust brown and the walls beige. The roller shades are beige and the window drapes are a red and gray striped pattern. The floor covering is a patterned carpet laid on carpet padding. A diamond pattern is used in the aisle between each pair of card-playing tables, and in the settee area is an oblong

**Partial List of Materials and Equipment on the Cars of
the Seaboard Air Line "Silver Meteor"**

Stainless steel	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
	Superior Steel Corp., Pittsburgh, Pa.
	Allegheny Ludlum Steel Corp., Pittsburgh, Pa.
Aluminum	Republic Steel Corp., Massillon, Ohio
	Aluminum Co. of America, Pittsburgh, Pa.
Dowmetal	Dow Chemical Co., Dowmetal Div., Midland, Mich.
Extruded aluminum	Bohn Aluminum & Brass Corp., Detroit, Mich.
Truck frames	General Steel Castings Corp., Eddy-stone, Pa.
Wheels and axles	Bethlehem Steel Co., Bethlehem, Pa.
Equalizer beams	J. G. Brill Co., Philadelphia, Pa.
Shock absorbers	Houde Engineering Corp., Buffalo, N. Y.
Roller bearings	The Timken Roller Bearing Co., Canton, Ohio
Coupler	McConway & Torley Co., Pittsburgh, Pa.
Hanger assembly	The Midland Company, South Milwaukee, Wis.
King pins	W. H. Miner, Inc., Chicago
Tight-lock couplers	National Malleable and Steel Castings Co., Cleveland, Ohio
Train-line connectors	Barco Manufacturing Co., Chicago
Air-brake equipment	New York Air Brake Co., New York
Unit cylinder clasp brakes and truck springs	American Steel Foundries, Chicago
Brake shoes	American Brake Shoe & Foundry Co., New York
Hand brakes	National Brake Co., Buffalo, N. Y.
Mounting pads	United States Rubber Products, Inc., Passaic, N. J.
Diaphragms	The Adams & Westlake Co., Elkhart, Ind.
Diaphragm fabric	B. F. Goodrich Co., Akron, Ohio
Insulation	Johns-Manville Sales Corp., New York
Air-conditioning equipment	Frigidaire Div. General Motors Corp., Dayton, Ohio
Air filters	Air-Maze Corporation, Cleveland, Ohio
Grilles	Independent Register Co., Cleveland, Ohio
	Tuttle & Bailey, Inc., New Britain, Conn.
Multi-vent panels	Burgess Battery Co., Madison, Wis.
Heating equipment	The Fulton Sylphon Co., Knoxville, Tenn.
Exhaust fans	B. F. Sturtevant Co., Hyde Park, Boston, Mass.
Electrical equipment	General Electric Company, Schenectady, N. Y.
	Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.
Charging receptacles, marker lamps	The Pyle-National Company, Chicago
Light fixtures	Luminator, Inc., Chicago
Electric fans	Diehl Mfg. Co., Elizabethport, N. J.
Generators, regulators and lighting fixtures	Safety Car Heating & Lighting Co., New York
Batteries	Electric Storage Battery Co., Philadelphia, Pa.
Wire	Anaconda Wire & Cable Co., New York
Resistors	Ward Leonard Electric Co., Mt. Vernon, N. Y.
Jumper assembly	Loeffelholz Co., Milwaukee, Wis.
Radios	Galvin Mfg. Corp., Chicago
Door locks	Dayton Mfg. Co., Dayton, Ohio
Door hardware	Jas. L. Howard & Co., Hartford, Conn.
Door closers	Yale & Towne Mfg. Co., Philadelphia, Pa.
Hardware	H. S. Getty & Co., Inc., Philadelphia, Pa.
	Hoegger, Inc., Weehawken, N. J.
Aluminum sash	Hunter Sash Co., Inc., Flushing, L. I., N. Y.
Drop type windows	O. M. Edwards, Inc., Syracuse, N. Y.
Curved window glass	Libbey-Owens-Ford Glass Co., Toledo, Ohio
Mirrors and laminated glass	Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Pressed prism glass	Pressed Prism Plate Glass Co., Chicago
Bar and kitchen equipment	Angelo Colonna, Philadelphia, Pa.

Seats	Heywood-Wakefield Co., Gardner, Mass.
Sofas and chairs	S. Karpen & Bro., Inc., Chicago
Chairs	The General Fireproofing Company, Youngstown, Ohio
Ashstands	Marshall Field & Co., Chicago
Mattresses and seat cushions	Dunlop Tire & Rubber Corp., Buffalo, N. Y.
Leather	Lackawanna Leather Co., Hackettstown, N. J.
Drapes and upholstery; carpet	L. C. Chase & Co., Inc., New York
Roller curtain material	The Pantasote Co., Inc., New York
Dish washer	G. S. Blakeslee & Co., Cicero, Ill.
Rubber tile	American Tile & Rubber Co., Trenton, N. J.
Cork	David E. Kennedy, Inc., Brooklyn, N. Y.
Safety treads	The Morton Mfg. Co., Chicago
Masonite	Masonite Corp., Chicago
Decalcomanias	National Decalcomania Corp., Philadelphia, Pa.
Copper tubing and fittings	American Radiator Co., New York
Brass pipe	Chase Brass & Copper Co., Inc., Waterbury, Conn.
Pipe covering	Union Asbestos & Rubber Co., Chicago
Lavatories	Crane Co., Chicago
Hoppers	Duner Co., Chicago
Hopper seats	The Brunswick-Balke-Collender Co., Chicago
Electric water cooler	Frigidaire Div. General Motors Corp., Dayton, Ohio
Drinking cup dispensers	Logan Drinking Cup Div., U. S. Envelope Co., Worcester, Mass.
Kleenex cabinets	International Cellulocotton Products Co., Chicago
Soap and paper towel dispensers	West Disinfecting Co., Long Island City, N. Y.
Toilet paper holders	Morgan Paper Co., Lititz, Pa.
Fire extinguishers	Pyrene Mfg. Co., Newark, N. J.
Paint	Phister Mfg. Co., Cincinnati, Ohio
	Dolphin Paint & Varnish Co., Toledo, Ohio

pattern. Each has an apple-green center field, a band in toast shade, and a nomad-brown side field.

Lighting is by three-unit and two-unit ceiling fixtures and built-in lights over the windows.

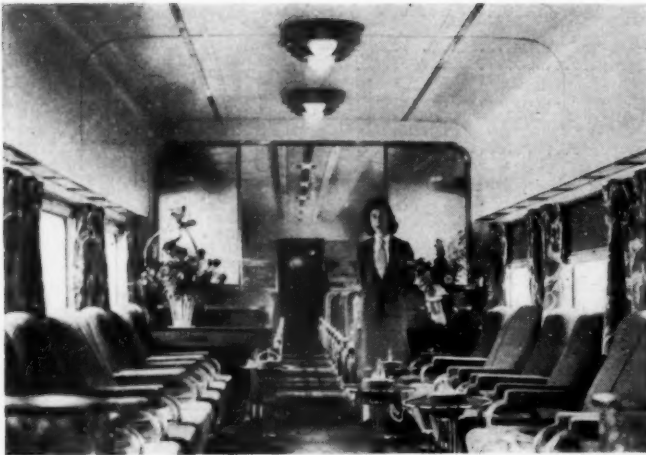
The bar at the front of this section has decoratively etched gun-metal back-bar and side-bar mirrors with diffused side lighting, glass shelves, a black rubber bar top and black molding. The bar front is stainless steel and green with a patterned multi-colored stripe of orange, green, yellow, and mustard at the top. The bar is equipped with electric refrigeration and has a concealed radio to supply music for the patrons of the tavern section. The flooring at the bar passageway is a black marbled rubber tile.

Car No. 4, the diner, has olive-gray walls and a three-tone ceiling of medium sand panel, light stone band, and dark tuscan-rose stripe. The window valance is a dark tuscan rose; roller curtains, beige, and the window drapes, a gray and rose pattern. The chair seats are upholstered with a raisin-colored pin-stripe material, and the backs are maroon and gray striped. Dining tables have a rubber top surface of shrimp with a gray border and gun-metal stripe.

Lighting consists of ceiling fixtures and concealed over-window lighting. The carpet flooring has a zigzag pattern with a center field of henna rust with admixture of mahogany, a dove-taupe band, and side field of raisin.

Against the kitchen partition facing the dining room is the buffet with a vertical-grain Caucasian walnut veneer on the cabinet body and vertical-grain Aricatal-walnut-veneered door and drawer panels. The top is shrimp-colored linoleum; the trim, stainless steel, and top molding, Caucasian walnut. Above is a mirror. The walls of the passageway and buffet area are dark tuscan rose, with light stone ceiling.

The kitchen has bright chrome-plated piping and fixtures and stainless-steel lining and lockers. Complete equipment for efficient service includes the range with an automatic blower, electric dish washer, electric ice-cream cabinet, sinks, work tables, etc. The kitchen flooring is wood racks set in stainless-steel drain pans. The windows are drop type with opal glass and a service door



Looking Forward in the Observation-Lounge

permits provisions to be taken directly into the kitchen. From a slot on either side of the entrance to the pantry is blown a curtain of air which is drawn inward by the ceiling exhaust fans. The air curtain prevents food odors from passing into the dining room.

Car No. 5 is a duplicate of chair car No. 2, except for the direction of operation and color scheme; it is referred to as the "brown car." The ceiling is oyster white with a steel-gray stripe; the walls, gray, and the end doors, laurel brown. The upholstery on alternate seats is a brown floral pattern and, on the other seats, a fawn-colored pin stripe. The roller shades are beige. Flooring is dark oak and the aisle has an ash-brown stripe with light-gray inserts. The color schemes of the lounges and annexes are the same as those of chair car No. 2.

Car No. 6 is a duplicate of the previous chair car, except for the color scheme. It is known as the "blue car." The upholstery on alternate seats is a blue pin stripe pattern, and the remaining seats are upholstered with a deeper blue material with a floral pattern. The ceiling is lemon cream with a burnt-orange stripe; walls, delft blue, and the end doors, burnt orange. Roller curtains are beige, and the flooring is dark oak with an aisle pattern of a gum-wood stripe and inserts of light buff. The color treatment of the lounges is the same as in the other chair cars.

The last car has a 48-passenger chair section with the smaller type toilet rooms forward. The general color scheme is yellow and turquoise, having a light travertine ceiling with a brown stripe, gray-green walls and brown end door. The upholstery on alternate seats is a brown-striped pattern and on the remaining seats a turquoise pencil stripe. As in all the chair sections, the end partitions provide a setting for photo murals in stainless-steel frames. The flooring is dark oak with an aisle pattern of a black stripe with blue-green inserts.

The observation lounge has 17 movable satin-finished square-tubular-framed arm chairs, three love seats, and a desk chair. Seven of these chairs are upholstered in old rose, seven in Eiffel green, and the remaining four chairs and love seats in Apollo gray.

Between the chair section and observation-lounge section is a low partition with decorative plate glass above. Etched in each panel is a large game fish, seen as through the side of an aquarium. Against this forward partition is a writing desk on the left and on the opposite side a magazine rack with a built-in radio. Toward the rear of the lounge are two built-in side tables and on either side of the rear-end doors is a built-in table, one of which conceals the equipment for train back-up move-

ments. All of these tables, desk and magazine rack are of Maidou burl veneer with ebonized walnut tops.

The center ceiling is ocean sand with an apricot band and sage-green molding stripe. The side ceiling and pier panels are apricot, the window shades beige and the drapes a ruby-red patterned material. The carpet with inserts of dove taupe on a mahogany field creates a restful atmosphere.

The lighting is by overhead fixtures, continuous cove lighting over the windows and table lamps.

The Structures and Mechanical Features

This train of stainless-steel construction, welded to form an integral unit by the Budd Shotweld method, has stainless-steel end underframe and body bolsters, and a stainless-steel center sill of unusual strength extending between the end sills. This center sill is built up of stainless-steel shapes drawn from sheets of $\frac{1}{4}$ -in. and $\frac{3}{16}$ -in. material. It has a cross-sectional area of 18.06 sq. in. and is designed to take a buffing load of 900,000 lb. within the limits of working stresses. The sill is symmetrical about its horizontal axis and the line of draft falls on the center of gravity of the cross-section. The floor structure consists of beams, stringers, and corrugated floor sheets, all integrally welded together and to the truss type side frame. The roof and skirt sheathing is corrugated high-tensile stainless steel, the dead-light panels are flat panels of soft finish, the rails are brightly polished, and the area below the belt rail is fluted panels, all of which form an attractive exterior of various finishes of the stainless steel. The railroad name is painted on the letterboard name plate and the car numbers are etched on a satin-finish stainless-steel plate in the fluted panel area.

The diaphragms of stainless steel have an inner telescoping arrangement sealed all around with canvas. The outer diaphragm of rubber is held taut by a frame hinged



One of the Ladies' Lounge-Dressing Rooms

from the face plate to give a continuous streamline appearance. At each vestibule there is a swing-out sign with the car designation number for the guidance of passengers when the train is at a station.

All the cars are non-articulated and have four-wheel,



The 2,000-Hp. Diesel-Electric Locomotive Built by the Electro-Motive Corporation

double-equalized trucks with 9-ft. wheel base, Timken roller bearings, unit cast-steel frames, shock absorbers and rubber sound deadening at vital points. With the exception of the leading truck of the combination baggage-chair car and both trucks of the dining car, which have 6-in. by 11-in. journals, the journal sizes are all 5½ in. by 10 in. The rolled-steel wheels are 36 in. in diameter. The maximum axle load on the most heavily loaded 6-in. by 11-in. truck is slightly less than 36,000 lb.; on the 5½-in. by 10-in. trucks it is under 30,000 lb. There are two cast-iron brake cylinders per truck and automatic slack adjusters. Tight-lock couplers and double-acting rubber type draft gear assure smooth starting without passenger discomfort.

The cars are equipped with New York D-22-A automatic passenger brake equipment. This equipment includes the D-22-A control valve and the A-4-A relay valve. With foundation brake rigging designed to provide the required high braking force for ultra high-speed service the A-4-A relay valve normally functions to provide the standard maximum braking ratio of 150 per cent for conventional passenger service, but permits the later adoption of high-speed features with a minimum of change if this becomes desirable.

Each car has a 20-kw. body-hung, axle-driven generator and 32-volt, 1,000-amp.-hr. batteries carried in stainless steel battery boxes. Hinged skirt panels permit access to the under-car apparatus for servicing. Standby receptacles provide for battery charging and operation of the air-conditioning apparatus at terminals.

The water supply is carried in stainless-steel tanks under the car which are serviced from filling plugs at the side.

The Locomotive

The locomotive for the Silver Meteor is a 2,000-hp. Diesel-electric unit built by the Electro-Motive Corporation, La Grange, Ill. In all of its important essentials it is identical in design to the "A" units of the 6,000-hp. locomotive built by the same company for the Orange Blossom Special which went into service on December 15, 1938.

The power plant consists of two 1,000-hp. General Motors 12-cylinder, two-cycle Diesel engines controlled simultaneously from the main throttle. To each main

engine is connected a 600-volt d.c. generator which supplies the electrical energy for the 450-hp. traction motors in the truck directly below each power plant. The electrical equipment was supplied by the Electro-Motive Corporation.

The locomotive is 70 ft. 4 in. long over the coupler nelling faces and weighs 315,700 lb. in working order. This weight is carried on two six-wheel trucks—157,350 lb. on the front truck and 158,350 on the rear truck. The front and rear axles of each truck are geared to the traction motors. The truck assemblies are interchangeable with the locomotives used on the Orange Blossom Special. They weigh approximately 50,000 lb. and have a wheel base of 14 ft. 1 in. The wheels are 36-in. rolled steel and the axles are mounted in Hyatt double-row roller bearings. The truck brake equipment is the clasp type actuated by four 10-in. by 10-in. brake cylinders on each truck.

The locomotive is controlled by three main levers: the main throttle, the reverse lever and the brake handle. The movement of the main throttle controls the speed of the two Diesel engines through an electro-pneumatic device which actuates the speed governor on each engine. Local control stations, consisting of fuel- and lubricating-oil gages and engine speed indicator, permit the checking of engine operation at the engine. At the operator's station in the front cab is a hot-journal and wheel-slip indicator in addition to the customary speed indicator, air-brake and automatic-train-control gages.

Train heat is supplied by a Clarkson type steam generator working at 225 lb. pressure. The feedwater pumps, fire control and train-line pressure regulation is fully automatic and adjusted by a hand rheostat. Steam from this boiler heats the operator's cab and warms the engine water systems during lay-over or maintenance periods.

THE COMMITTEE ON RAILROAD SUPPORT OF NEW YORK at its February meeting voted to journey to Washington, D. C., to meet with Chairman Burton K. Wheeler of the Senate Interstate Commerce Committee and other members of that committee to lay before them the viewpoint of the layman, security holder, and the railroad employee as to the need of constructive railroad legislation. The trip is tentatively scheduled for March 4. The group's meeting prior to this will constitute a "dress rehearsal" to plan a method of presenting their story.

Senate Receives More Wheeler Reports

WASHINGTON, D. C.

SENATOR Wheeler, Democrat of Montana and chairman of the Senate Interstate Commerce Committee and Senator Truman, Democrat of Missouri and also a member of the Interstate Commerce Committee, have submitted to the Senate the third and fourth of a series of reports growing out of the recent investigation of railroad holding companies by a subcommittee created for that purpose. The third report, entitled "Fallibility of Auditors' Certificates: Inadequacy of Price, Waterhouse & Co.'s Certificate to Missouri Pacific Stockholders," criticizes this firm of accountants for their alleged failure to certify to the stockholders the fact that an item of \$3,200,000 shown on the MOP's 1933 balance sheet as a "special deposit" with the Guaranty Trust Company of New York City did not exist.

The fourth report, entitled "Control of the Chicago & Eastern Illinois Railway Co." deals with the transaction whereby the Chesapeake & Ohio acquired control of the Chicago & Eastern Illinois in a manner which Senator Wheeler calls "secret" and without the knowledge of the Interstate Commerce Commission.

Wheeler Says Report is Significant

In a statement accompanying the third report, Senator Wheeler says that "This report throws further light upon a topic which has recently been the subject of much discussion. It is particularly significant because it shows that superficiality is not the only shortcoming of certified statements. Even where gross irregularities are discovered by certified public accountants, the accounts may be certified to the public without revelation of the gross irregularities discovered."

The third report recites the history of the case, showing how Price, Waterhouse & Co. was employed by the bankruptcy trustee of the Missouri Pacific to supply an audit of that company's books which would be "absolutely accurate"; and also to examine and certify the railroad's report to stockholders for the year 1933. In the course of their work, the report says, the accountants came upon an item of \$3,200,000 listed as a "special deposit", supposedly with the Guaranty Trust Company of New York. Not content to accept the books of the company, the accountants wrote an inquiry to the Guaranty Trust Company, and were informed that "there were no funds on deposit."

"Special Deposit" Not On Deposit

"In spite of their full knowledge", Senator Wheeler and Senator Truman said, "that the \$3,200,000 listed as a 'special deposit' was not on deposit, Price, Waterhouse & Co. certified the railroad's report to stockholders carrying the \$3,200,000 under 'Current Assets-Special Deposits'." The statement also points out that "Mr. George O. May, partner in Price, Waterhouse & Co. since 1902, conceded that the false entry certified by his firm was 'in its effect misleadingly erroneous'."

The Senators' statement concludes by saying that "In addition to revealing the need for general supervision of public accounting practices, the facts cited in this subcommittee report show a need for safeguards within the railroad fields. Railroad accounts are supervised by the Bureau of Accounts of the Interstate Commerce Commission, but its staff is too small and its legal powers

too limited to permit prompt or adequate discharge of its important functions. We would like to see the personnel of the Bureau of Accounts increased, and the Interstate Commerce Commission given the same access to the books of railroad subsidiaries and holding companies, and of banks, brokerage and investment banking firms, and accounting firms, that it now has to the books of the railroads themselves. Legislation is being drafted covering these points, designed to curb abuses like those examined in the report submitted to the Senate, and other abuses."

Summary and Conclusions

The summary and conclusions of the report follow:

Summing up the testimony and exhibits placed before this subcommittee in the matter of Price, Waterhouse's 1934 audit of the Missouri Pacific Railroad and the certified report to the Missouri Pacific's stockholders, the following conclusions seem evident:

The audit and the stockholders' report, bearing the same date of certification by Price, Waterhouse & Co., are at variance in a material particular—one being semiprivate and true in that particular and the other public and false in the same particular.

The report to stockholders failed to reveal that the railroad had overstated its current assets by more than \$3,000,000. This was a fact discovered by Price, Waterhouse & Co., and known only to them.

The stockholders' report contained an entry which was, as conceded by Mr. May, "in its effect misleadingly erroneous," though certified by Price, Waterhouse & Co., and which became the source of incorrect information subsequently printed in standard reference manuals and distributed to the public without correction.

Price, Waterhouse & Co. violated the specific instructions of the trustee, and the confidence of the public in certifying a report that departed from even minimum standards of correctness, accuracy, and truth.

Discussion of Fourth Report

The fourth report "indicates some of the legal devices which some railroads and holding companies in control of railroads have been using to evade Interstate Commerce Commission authority and Congressional mandate, substituting their own judgment for the requirements of the law," said Senator Wheeler in an introductory statement accompanying the report.

"The report shows," asserted the Senator, "that from 1930 right down to the present date, the Chesapeake & Ohio has controlled the Chicago & Eastern Illinois. At the beginning it concealed that fact. Many devices were used to conceal it and to evade the jurisdiction of the Interstate Commerce Commission. A dummy contract was signed, a leading banker was used as a facade behind which the railroad hid, a leading firm of New York Stock Exchange brokers acted as dummy 'purchasers'. The books of account of the C. & O. and of one of its subsidiary corporations were so kept as to give an utterly false picture of the transaction. False reports were submitted to the Government. Fake documents, including a promissory note which was not a promissory note, a purchase contract which was not a purchase contract, and a dummy depository contract were drafted by leading lawyers and solemnly signed by holding company executives, stock brokers, and railroad officials. The effect has been to prevent the Interstate Commerce Commission from passing upon the transaction, as Congress intended that it should."

Says Deception Must Not Continue

The Senator then goes on to say that deception of the commission must not continue. He points out that the

bill which he introduced this week and reported elsewhere in this issue is designed "to remove the legal blindfold from the eyes of the commission, by giving it adequate power to examine the books of the railroad holding companies, subsidiaries, banks, stock brokers, and other parts of the system of railroad finance, instead of confining the commission to the books and records of the railroads only."

The Senator concludes his statement by saying that the subcommittee's report deals with a stock acquisition by the C. & O. in which "it lost almost the entire \$8,000,000 expended by it in a transaction characterized by evasions, concealments and tricky legalistic devices from beginning to end. The net result was to squander almost \$8,000,000 of railroad funds. It is just that kind of adventure by railroads that the bill (introduced this week) seeks to eliminate from the future history of railroad finance. Such costly excursions outside the proper field of transportation and into stock speculation are absolutely unnecessary for the legitimate operations of our railroad system and serve merely as devitalizing factors."

Summary and Conclusions

The summary and conclusions of the fourth report follow:

This report deals with transactions whereby a big railroad, the Chesapeake & Ohio, acquired control of a smaller road, the Chicago & Eastern Illinois. The initial transaction, in 1930, was kept secret from the general public, from investors, from the president of the railroad which was subjected to domination, and from the Interstate Commerce Commission—the Government body in charge of such matters. Secrecy was deemed necessary to escape the jurisdiction of the Commission, which there was reason to believe might have prevented the consummation of the deal. By means of the initial and subsequent transactions the purpose and intention of the governing law passed by Congress were evaded, and the established authority of the Interstate Commerce Commission was flouted.

In accomplishing this concealment and this defeat of the law, many devices were used. A dummy contract was signed, a leading banker was used as a facade behind which the controlling interests were hidden, a leading firm of New York Stock Exchange brokers appeared as a dummy purchaser. The books of account of the Chesapeake & Ohio Railway Co. and one of its subordinate corporations were so kept as to give an utterly false picture of the transaction. False reports were submitted to the Government. A corporation was found to act as dummy substitute purchaser. Fake documents, including a promissory note which was not a promissory note, a purchase contract which was not a purchase contract, a dummy depository contract, and fake extending contracts, were drafted by leading financial and railroad lawyers and solemnly signed. The elaborate paraphernalia of high finance were repeatedly called into service to present an appearance contrary to the truth.

This series of evasions, and the basic purpose of getting around the law, have continued from January, 1930, to the present time. We are therefore dealing, not with ancient history, but with contemporary high finance. We are also dealing with some of the most prominent figures on the financial and corporate scene. Among those who participated in one or more of the steps in this complicated descent into financial concealment and evasion are: One of the biggest railroad holding companies and some of its chief executives; one of the biggest and richest railroad corporations and some of its chief executives; the biggest trust company in the United States, and its chief executive; one of the most important member firms of the New York Stock Exchange; the principal private banking firm in the United States; two of the chief law firms operating in the field of railroad and holding company finance.

The contemporary nature of the transactions, and the great size and leadership of the corporations and individuals just described present a problem fundamental in the regulation and control of large-scale industry and finance. Is their attitude

toward Government regulation and control so hostile as to justify in their minds such means, or any means, for defeating laws of Congress and administrative regulation? Is the ingenuity of promoters, financiers, and lawyers sufficiently fertile to provide such hostility with devices enabling them to get around the law and to make themselves to this extent more powerful than government itself?

Wheeler Offers New Rail Regulatory Bill

WASHINGTON, D. C.

FOLLOWING the recent recommendations of his subcommittee investigating railroad holding companies, Senator Wheeler, Democrat of Montana and chairman of the Senate interstate commerce committee, introduced in the Senate on February 13, a bill S. 1310, which would amend the Interstate Commerce Act by giving the commission broad powers to regulate the spending of railroad funds for the purchase of stocks of other railroad companies. An identical bill, H.R. 4041, was simultaneously introduced in the House by Representative Lea, Democrat of California and chairman of the House committee on interstate and foreign commerce. Senator Wheeler said that the bill was the first of a series of bills which he intends to introduce in this Congress dealing with various aspects of the railroad problem.

In an introductory statement accompanying the bill, Senator Wheeler pointed out that the bill was drafted by the commission, in cooperation with the staff of his subcommittee, and that it was recommended by the Legislative Committee of the commission. He added that the "principal objects which the bill is intended to accomplish have been repeatedly advocated by the entire commission."

Would Conserve Railroad Funds

"The chief purpose of the bill," according to the Senator, "is to prevent the unnecessary and wasteful spending of railroad funds for the purchase of stocks or properties which are not needed for the legitimate operation of the railroad itself. Such spending has been a serious abuse in the past, and the unhappy financial condition of many railroad companies at the present time is due in part to these practices. For example, the recent bankruptcy of the New Haven was largely due to unwise and extravagant stock purchases made by the New Haven before the Great War, under the domination of the so-called Morgan-Mellon management. Between 1924 and 1931 most of the large eastern railroad systems engaged in this practice, and the resulting losses will amount to over \$250,000,000. Several of the southwestern railroads now in bankruptcy have also sustained serious losses from unwise and unnecessary speculation. There is no sense in allowing this drain on the railroads to occur in the future. Under this bill, the commission is empowered to prevent such spending. I believe that these new powers may help to prevent the recurrence of railroad failures in the future."

"In addition," the Montanan asserts, "the bill seeks to fill certain gaps in the commission's powers which have resulted from corporate intricacies and devices resorted to by railroads to evade supervision by the commission. Subsidiary companies have thus been used to borrow money and issue securities, to make purchases, or take other steps which the railroads under existing law are

not allowed to take without the commission's approval. This bill subjects subsidiaries of railroads to the same requirements with respect to accounting, reporting, and issuing securities that now apply to the railroads themselves. Furthermore, the bill enables the commission to keep itself better informed than heretofore on railroad affairs by empowering it to obtain relevant information and data from bankers, accountants, and equipment companies which do business with railroads, and from railroad holding companies and associations."

Supply Companies Brought Under Act

Paragraph 5 of section 20 of the Interstate Commerce Act is amended so as to give the commission power to inspect and copy books, records, memoranda, correspondence, and other documents of any bank, brokerage firm, railroad association, investment banking firm, accounting firm, or person which sells or has sold equipment or supplies to carriers as the commission deems relevant to any transaction or relations between such firms and one or more carriers or their subsidiaries.

Senator Wheeler further states that the principal features of the bill have been repeatedly recommended by the commission in its annual reports and in its investigation of the New Haven. The other features of the bill, it is pointed out, are in line with the "long-established" purposes of the commission. "The need for this legislation," the Senator concludes, "is amply demonstrated not only by the experience of the commission but also by the record of the investigation by the Senate subcommittee."

Summary of Bill

The new bill is a lengthy and detailed one making specific amendments to certain sections of the present act by striking out language in some places and adding provisions in others. A summary of the principal provisions of the bill follows:

1. Section 1 of the bill furnishes definitions of companies which control or are affiliated with railroads, and of subsidiaries of railroads.
2. Sections 2 and 3 are "merely formal perfecting amendments."
3. Sections 4 to 9 inclusive bring subsidiaries of railroads under the existing provisions of the Interstate Commerce Act, which gave the commission authority to regulate the issuance of securities and the reports and accounts of railroads. Section 6 of the bill also empowers the commission to obtain relevant information and data from railroad holding companies, railway associations, and from banks, brokers, accountants and railway equipment companies which deal with railroads.

4. Section 10 of the bill adds a new section to the Interstate Commerce Act which empowers the commission to prevent or supervise the use of railroad funds for other than strictly railroad purposes.

"The bill is so drawn," Senator Wheeler said, "that the railroads will not be hampered in investing their surplus funds in a safe and conservative manner. Nor does it restrict the railroads in connection with purchases which are for the 'operation, maintenance or improvement' of the railroad itself. Purchases which are not connected with the 'operation, maintenance, or improvement' of railroads may be permitted by the commission if the terms are 'fair and reasonable' and if the purchases constitute 'a proper use' of railroad funds and are 'compatible with the public interest.'"

Cork and Rubber Molded Sound Insulation

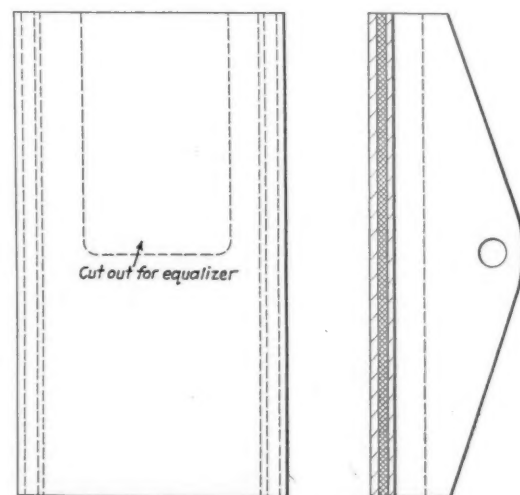
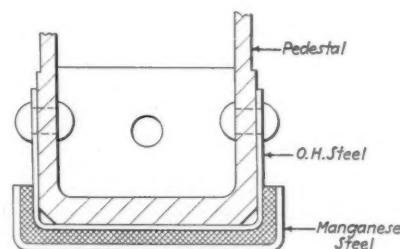
A MEANS for preventing sound transmission from rail to truck and into the body of the railroad car by the use of cork and rubber, and cork and synthetic rubber compounds has recently been developed by the Armstrong Cork Company, Lancaster, Pa. The pedestal is isolated from the journal box and the helical springs from the equalizer bar and the truck frame by preformed pads of the insulating material.

One of the drawings shows a pedestal liner of the riveted type. The insulating material is molded between the back and the wearing face of the liner, to both of which it is vulcanized. The wearing face is preferably made of manganese steel, but is sometimes made of spring steel. The thickness of the liner is held to very close tolerances.

Pedestal liners can be furnished in three types: the riveted type shown, the bolted type, and the tack-welded type. The face dimension or width overall of the liners may be 8 in., $7\frac{3}{4}$ in. or $6\frac{3}{8}$ in., as required. This dimension can be varied to meet the specifications. The length of the face may be from $18\frac{1}{2}$ in. down to $14\frac{1}{2}$ in. and can also be varied as needed. The outer liner is made with a solid face, and the inner or equalizer liner has the face cut out, as shown in dotted lines, to allow the equalizer bar to rest on the journal box. The width of the cut-out prevents metallic contact being made with the side of the liner or pedestal.

When lubrication is used on the pedestal, the composition or isolation material is made with a synthetic rubber base and cork. If the pedestal is not lubricated, a rubber and cork composition is used. The composition is bodily compressible to a degree that can be closely controlled. This property of controlled body compressibility, combined with controlled flow, makes this material

(Continued on page 314)



Sound-Insulated Pedestal Liner



The New Pier at Philadelphia as it Appears From Delaware Avenue

Baltimore & Ohio Builds Modern Pier at Philadelphia

New structure embodies unusual foundation construction, a complete fire protection system, glass block panels in facade and other features

WHEN Pier No. 12 of the Baltimore & Ohio at Philadelphia was destroyed by fire, the railroad replaced it with a thoroughly modern structure embodying a number of noteworthy features. Among these may be mentioned the deck construction, which embodies concrete slabs laid on an earth fill supported on the timber deck of the pile foundation, and the fire protection system which includes, in addition to hose outlets at various points, an automatic dry pipe sprinkler system for serving the interior of the structure in its entirety, and a manually-controlled open sprinkler system for serving the exterior wall surfaces on the water sides of the pier. Another aspect of the pier worthy of mention is the fact that the brick facade at the shore end, which fronts on Delaware avenue, embodies a number of rectangular panels of glass blocks.

For Handling Fresh Meats

The new facility, which is located on the site of the original structure on the west bank of the Delaware river, is for the most part a one-story merchandise pier designed principally for the handling of fresh meats and packing house products which are received at the pier by car floats for distribution locally by truck. The enclosed portion of the structure has an over-all length of nearly 540 ft. and for the greater part of the length the width between the outside faces of the walls is 65 ft. The overall width, including a 2½-ft. exterior concrete platform along each side of the pier, is 70 ft. For a distance of 395 ft. from the shore end, the south portion of the floor area is occupied by a truck driveway, 40 ft. wide,

which is approximately at the level of Delaware avenue. Throughout the length of the driveway the remainder of the width of the pier (25 ft.) is occupied by a platform at tailboard height, while for a length of 140 ft. at the outshore end the entire width of the pier is at the platform level and additional tailboard space is provided at the outshore end of the driveway.

At the shore end of the pier, further tailboard space 38 ft. long, is provided on the south side of the driveway where an additional section of floor area, all at the platform level, gives the pier an L-shaped appearance. Since the pier extends into the river at a slight deviation from a line normal to the shore, the facade, which follows the shore line and has a length of about 113 ft., deviates correspondingly from a line normal to the center line of the pier.

A total of 11 refrigerated rooms are provided in the pier, three on the north platform near the shore end and the other eight on the platform level at the water end, where, except for a corridor extending along the center line of the pier, they occupy the full width of the pier for a distance of 80 ft. from the out-shore end. Other facilities embodied in the pier include four wharf drops, three along the north side and one on the south side, and an overhead mono-rail hoist system which serves all refrigerated rooms, side doors, wharf drops and interior tailboard space except that along the south side at the shore end.

Three offices are provided at different locations on the pier. One of these is situated in a corner of the platform area on the south side of the driveway at the shore end and is surmounted by a locker room for employees. An-

other office is located above one of the three cooler rooms near the shore end and the third is placed along the north wall of the pier about three-quarters of the distance out from the shore end. A platform dial scale having a capacity of four tons is placed on the south platform at the shore end.

Construction of Foundation

The pile foundation of the new pier consists of transverse bents containing 12 or 14 piles each, which are spaced generally 5 ft. apart. To a large extent the foundation incorporates the original piling, to which were added additional piles as needed. In the reconstruction work each bent was capped with two lines of 6-in. by 12-in. timbers, suitably spliced between piles, one of which was placed along each side of the bent in mortised recesses in the tops of the piles. Next, 6-in. by 12-in. timbers were spiked to the caps on 2-ft. centers at right angles to the bents, and over this under-decking was laid a deck of 2-in. planks which were placed diagonally in two directions from the center line of the pier. At the shore end of the pier an existing frame crib or bulkhead, having an average width of approximately 39 ft. and extending out into the river about 150 ft., was incorporated in the new substructure and it was not necessary to drive piles or to provide a timber deck within this area.

The fill on which the driveway and platform slabs were laid was placed directly on the timber deck and is retained in position by concrete walls at the sides and ends of the pier, which also serve as foundations for the roof columns and as a support for the edges of the platform and driveway slabs. In cross section these walls have the shape of a right-angle triangle, truncated at the

apex angle, with the vertical side of the triangle forming the outer face of the wall. Generally, the walls are 6 ft. high (from the timber deck to the pour line) and are 6 ft. thick at the bottom and 18 in. at the top. To serve as a key, a 6-in. by 10-in. timber was fastened to the deck longitudinally under each wall before the concrete was placed.

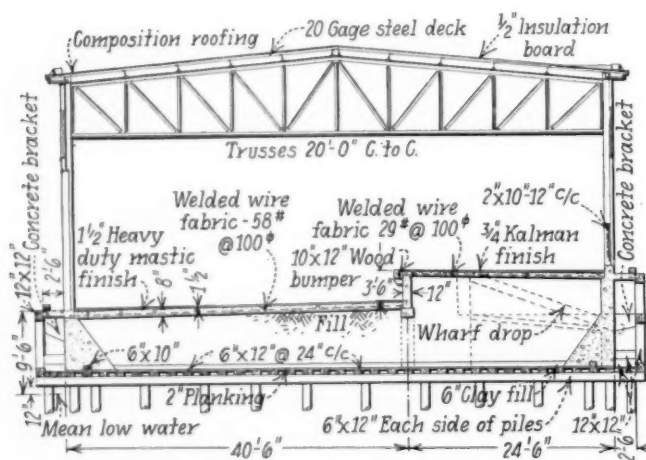
Throughout the length of the driveway on the south side of the pier, the exterior edge of the driveway slab rests directly on the top of the foundation wall, but elsewhere the deck of the pier is at the platform level and to bring the retaining wall up to this level the triangular section is surmounted by a wall 18-in. thick and of the proper height. Other concrete foundation work included the construction of columns or piers to support the retaining walls along the inside edges of the platforms. These columns are 18 in. by 24 in. in cross section, are spaced generally 10 ft. apart, and bear directly on the timber deck except throughout the length of the existing bulkhead where a concrete footing, 4 ft. by 4 ft. in plan and 1 ft. 6 in. deep, is provided under each column to spread the load. The load imposed by the interior retaining walls, which are each 12-in. thick, is transmitted to the columns by means of a concrete cap or strut, 18 in. by 12 in. in section.

Arrangement at Out-Shore End

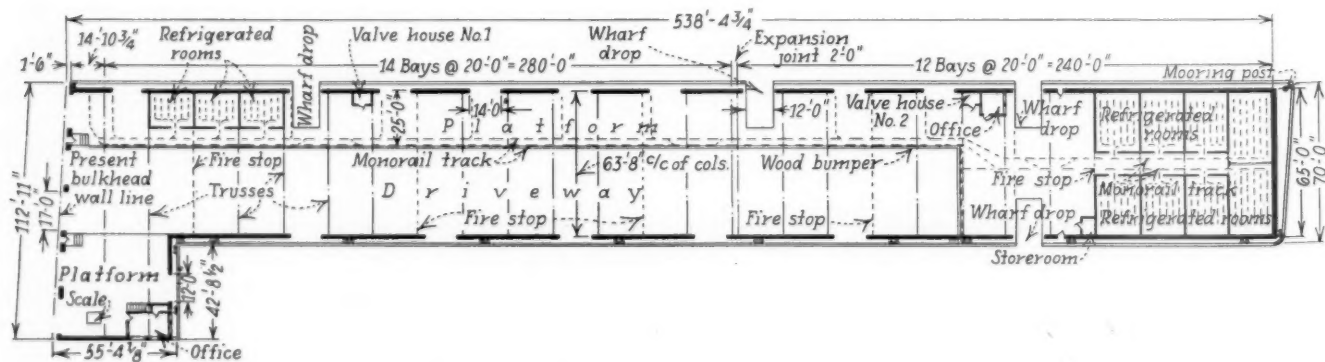
At the out-shore end of the pier it was considered desirable to line up the outside retaining wall with the face of one of the piers under the Delaware River bridge which is just downstream from the pier and which is also on the pier head line established by federal authorities. For this reason the wall at this end is not normal to the longitudinal center line of the pier and hence does not serve as the support for the columns in the end wall. The latter function is performed by a 12-in. foundation wall supported in much the same manner as the retaining walls under the inside edges of the platform.

After the concrete retaining wall and substructure work had been completed as described above, the filling material was placed. The first 6 in. of this material consists of clay and the remainder of earth, which was placed in layers not exceeding 12 in. in thickness and compacted by rolling.

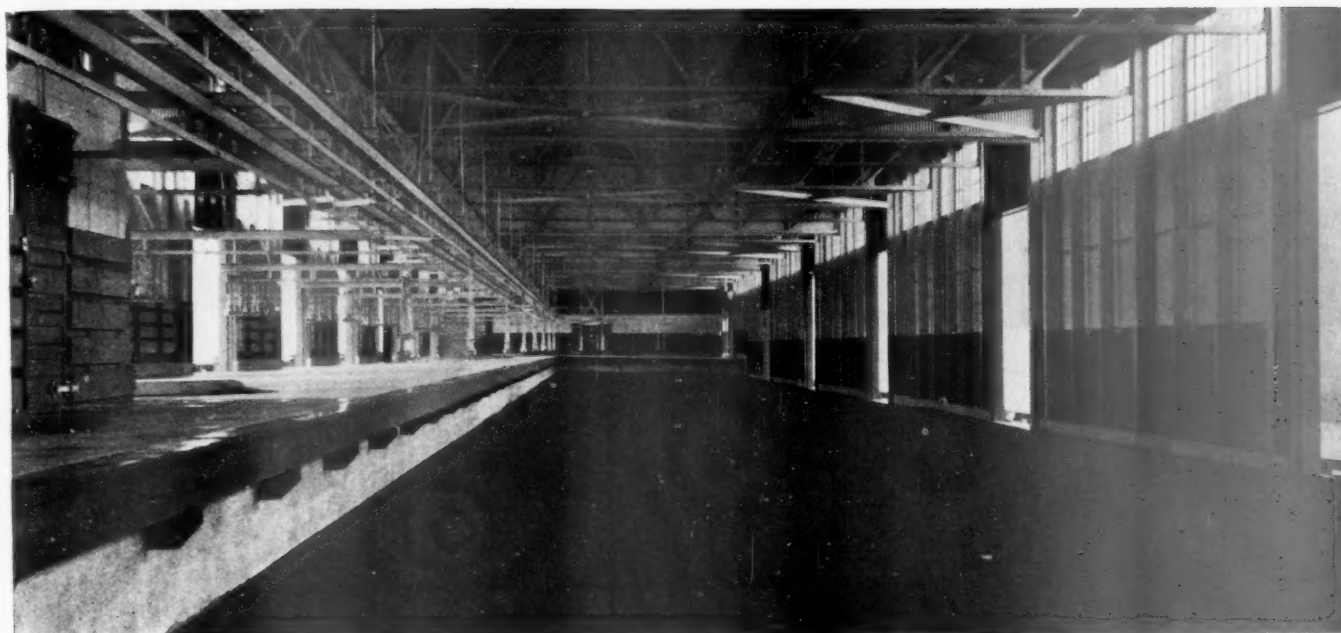
Concrete slabs for both the driveway and the platform, including that under the refrigerated rooms at the out-shore end of the pier, were poured in place directly on the fill. The driveway slab is 8-in. thick, is reinforced with 58-lb. welded wire fabric, and is provided with a 1½-in. heavy-duty mastic wearing surface. On the platform level the slab is 6-in. thick, is reinforced with 29-lb. welded wire fabric and, exclusive of the refrigerated rooms, offices and certain other areas, is surfaced with a ¾-in. Venite finish.



Typical Cross Section Through the Pier, Showing the Deck Construction



Deck Plan of the New Pier of the B. & O. at Philadelphia



A View Along the Driveway of the Pier, Looking Toward the Water End

Along the north and south sides of the pier the exterior platform slab is 2 ft. 6 in. wide and 8-in. thick and is supported by concrete brackets, spaced 10 ft. apart and cast integrally with the retaining wall. At the out-shore end, the triangular space between the end wall of the pier and the retaining wall is covered at the deck level with an 8-in. concrete slab. On all three exposed sides of the pier the retaining wall is protected by a timber fender system of 12-in. by 12-in. members anchored to the wall, while at the water end of the structure the rounded corners of the foundation wall are protected by fender piles.

Features of Superstructure

The superstructure of Pier 12 embodies several types of construction and a variety of materials. Throughout the length of the main portion of the pier the roof is of the double-pitch type and is supported by flat Pratt roof trusses spaced on 20-ft. centers and supported by H-section columns at the wall lines. To provide for expansion, a double bent is located approximately midway of the length of the pier. At the shore end the roof over the platform area on the south side of the driveway continues on the pitch of the roof trusses and is supported by transverse I-beams which span between the columns carrying the roof trusses and the south wall. The entire pier is covered with a 20-gage steel deck roof, over which was applied a ½-in. layer of roofing insulation board and a built-up composition roof.

At the shore end of the pier, including a length of 64 ft. on the south side and of 54 ft. on the north, the walls are of brick construction and in the facade and on the north and south sides they are finished with face brick and topped with concrete copings. In the facade of the structure, effective use is made of slight set backs in the wall and a stepped arrangement of the copings to obtain an attractive appearance, which is further enhanced by the inclusion of five panels of glass blocks, each of which is 6 ft. high and 11 ft. long.

In addition to the truck entrance and exit doors, the facade of the pier also contains three openings that serve outside tailboard space, one to the north and two to the south of the truck entrance, all of which are protected

by metal canopies. All the truck and platform openings in the facade of the structure, together with a large opening in the east wall of the platform area south of the driveway, are enclosed with vertical rolling steel doors.

Beyond the limits of the brick construction, the exterior walls of the piers are of 22-gage galvanized corrugated siding. On each side of the pier the walls, except opposite the refrigerated rooms at the out-shore end, are pierced by a practically continuous line of steel sash 5 ft. high, which are placed above the tops of the side doors. The latter, which generally are provided in alternate bays on the north side and in every third bay along the south side, are 14-ft. openings and are fitted with manually-operated two-section vertical doors in which the upper sections are glazed and the lower sections are enclosed with galvanized steel sheets. Equipment similar to that employed for operating the side doors is provided for actuating the wharf drops and is designed



The Platform Area on the South Side of the Driveway at the Shore End

to suspend each drop in any desired position between the limits of its movement.

The refrigerated rooms are for the most part of conventional construction. At the out-shore end of the pier the framing for the group of eight rooms consists of timber wall studs and ceiling joists, the latter being supported in part by wide-flange beams, extending parallel with the pier center line and spanning between H-section columns in the walls of the rooms. Each of these columns is supported in the fill on a concrete footing 4 ft. 6 in. square and 2 ft. 4 in. deep. The ceilings and outside walls of the rooms at the out-shore end are constructed of a 4-in. layer of cork board (two 2-in. layers in the outside walls and one 4-in. thickness in the ceilings) and two $\frac{7}{8}$ -in. thicknesses of tongue-and-groove sheathing, adjacent layers of the construction being separated by a layer of two-ply saturated waterproof insulating paper.

Partitions and interior walls of the rooms consist in each case of one 4-in. thickness of cork board, while the floors are also laid with one 4-in. thickness of cork which is covered with a concrete floor finish having a minimum thickness of 3 in. Exposed surfaces of all cork board in the side walls and partitions of the cooling rooms are covered with at least $\frac{1}{2}$ in. of Portland cement plaster. The ceilings of all cooling rooms and also that of the corridor between the rooms, which was covered with a 3-in. thickness of cork, were finished with two coats of emulsified asphalt.

The construction of two of the three refrigerated rooms near the shore end of the pier is substantially similar to that described above. The third of these rooms, that nearest Delaware avenue, carries an office overhead and for this reason its walls are of brick construction and the ceiling is of concrete poured in place. In this room the ceiling and all walls except that on the east side are lined with two 2-in. layers of cork, while on both sides of the east wall only one 2-in. layer was applied. The floor construction in this room is the same as that used in the other refrigerated rooms.

For cooling the refrigerated rooms, a circulating brine system is employed in which the brine is piped from the system of a local cold storage concern. Piping for the brine system consists of black steel pipe with long radius tube turns, and the length of pipe ($1\frac{1}{4}$ in. diameter) in the coils in the different rooms ranges from 708 ft. to 1,258 ft., depending on the size of the room.

Fire Protection System

As stated previously, fire protection is provided by an automatic dry pipe sprinkler installation on the interior, a manually-controlled open sprinkler system on the exterior, and hose outlets at various points. Included in the automatic dry pipe installation are 444 sprinklers arranged overhead under the roof throughout the length of the pier, 59 sprinklers in the cooling rooms and corridor at the water end of the pier, 12 sprinklers in the other three cooling rooms, and from one to two sprinklers in the various other smaller rooms, such as offices, toilets and valve houses. The open sprinkler system on the exterior, which serves all three water sides of the pier for their entire length, comprises a total of 160 sprinklers. All piping for the fire protection system above ground is of wrought iron.

A total of five hose outlets are provided, each of which embodies 50 ft. of $1\frac{1}{2}$ -in. hose, except one near the water end of the pier, which has 100 ft. of hose. The hose outlets are served by a standpipe control system which is so arranged that the opening of any one of the five outlets causes a motor-operated valve to open, allowing water

to flow into the hose supply system. As a further protective measure against fire, a corrugated metal fire stop is provided at each fifth roof truss, counting from the water end of the pier. In each case these fire stops cover the entire area of the truss.

In addition to the various features described above, the pier is modern in every respect. Other features include a hook-up with the A. D. T. night watchman—fire alarm—local gong system, and the use of gas steam heaters in the office, locker and toilet rooms and electric heaters in the two valve houses.

All work in connection with the design and reconstruction of Pier 12 was carried out under the general supervision of H. A. Lane, chief engineer of the B. & O., and L. P. Kimball, engineer of buildings. McCloskey & Co., Philadelphia, Pa., were the general contractors on the project.

In 12 Years Highway Subsidy Is 10 Billions

WHEN a citizen buys electricity, he pays the full cost of the current he uses in his monthly electric bill. But when the same citizen uses highway service (which, both in economics and law, is another utility corresponding to electric current) he pays for only a part of the service he gets when he buys his license plates and when he pays the fees on the gasoline he consumes. The rest of the bill for highway service is hidden away in the tax bill he gets on his house, and in the income and "nuisance" taxes he has to pay. Thus many a citizen probably thinks that the taxes on his home and his income are high, and that the highway system he uses is a big bargain—whereas the tax bill against his home and income wouldn't be nearly so high if license tag and gasoline fees were big enough to cover the costs of highway service.

The above is the inevitable conclusion to be drawn from a study of highway costs, made by three eminent highway engineers, and published this week by the Association of American Railroads in Washington. The A. A. R. commissioned these engineers to make this study, because railway service, like electricity, is another utility which has to be paid for entirely by the users (and not, like highway service, in large part at the expense of the general taxpayers). And the railways find it hard to compete against a competitor whose expenses are paid in large part by the taxpayers.

But when the motorist comes to pay his tax on his home and on his income, he not only finds these taxes boosted by the amount of highway expenses he did not pay when he bought gasoline and license tags for his automobile—that would not hurt him so much. But, added to the tax bill on the citizen's house and his income, is also hidden a large assessment to pay for the highway expenses of heavy trucks. Because, while private automobiles are assessed license and gasoline taxes sufficient to defray about 64 per cent of the highway costs assignable to such light vehicles, *some big trucks are paying in license and gasoline fees only about 20 per cent of the highway expenses necessary to maintain roads for them to use.*

So, when the householder goes to pay his real estate taxes and his income taxes, a large slice of the money he pays goes to provide highway service for trucks—and thus enable business concerns to make a profit for themselves at the taxpayer's expense.

Such are the significant conclusions to be drawn from this report. The engineers who have developed the facts upon which such conclusions may logically be based are Professors C. B. Breed and W. S. Downs, the former of Massachusetts Institute of Technology and the latter of West Virginia University; and Clifford Older, of Wilmette, Ill. The outstanding facts in this report may be summarized as follows:

In the 12 years, 1921-32 (the latest years for which full data are available), almost 21 billion dollars were spent upon the highways of this country.

Of this 21 billion dollars, about 75 per cent, or almost 16 billion dollars, *should* have been paid for by the users of the highways. (The engineers believe that the general taxpayers ought to pay about the same *per capita* for highways as they were paying before the coming of the motor vehicle; and that the taxes levied on the motor vehicles should be sufficient only to cover the *extra* costs of highways made necessary to accommodate motor traffic. This is why they believe it is fair to charge only 16 billion dollars of the 1921-32 highway expenses against motor vehicles, instead of the entire expense of 21 billions.)

But, while users of the highways ought fairly to have paid about 16 billion dollars toward highway expenses in the period 1921-32, they actually paid in license fees and gasoline levies only 6 billion dollars—or about 10 billion shy of what they ought to have paid.

It inevitably follows from these figures that in the 12 years, 1921-32, highway transportation was subsidized by the general taxpayers in the total sum of about 10 billion dollars—or at the average rate of over 800 million dollars a year. The engineers assert that this annual subsidy has not diminished since 1932, but has continued right along.

It is not, however the "little fellow" with the old family jalopy or light farm truck who has had his charges for the use of the highways shaved down importantly by this robbing-Peter-to-pay-Paul method of highway finance. This fact is brought out in the figures shown in the accompanying table. It will be seen the annual gift from the pockets of the general taxpayers to the private motorist is only about \$15 a year, while that to the operator of a big for-hire truck is almost \$2,000 a year.

The report is carefully documented, the compilers citing the authorities whom they have followed both in

port as soon as it appeared, asserting (among many other things) that "the railroads might better assign their experts to finding out why the railroads cannot make their operations pay rather than delving into extraneous fields.

Automobiles for New Uses

A NUMBER of railroads in the east have inaugurated the practice of transporting train or engine crews by automobiles to outside points to avoid excessive light locomotive mileage. The Baltimore & Ohio made wide use of autos for this purpose in flood times, when work train crews were handled to and from outlying points in automobiles, thus permitting the train itself to remain where it was needed for emergency work. Also, when engines are leased to other railroads or brought back at the expiration of leases, the crews are handled in one direction by auto. The Pennsylvania has certain engines working on outlying districts on two shifts, the Henrietta district of the Middle division for example, where much light locomotive mileage is saved by transporting crews by automobile.

The Erie also makes considerable use of automobiles in taking crews to and from their jobs. On the Wyoming division, for example, when a mine-run engine is operated on two shifts on the Jessup branch, it is housed in the enginehouse at Dunmore, Pa., on the parallel Scranton branch. When the engine goes into service, it is taken down the Scranton branch to the main line, thence to the Jessup branch and up this branch to its work in the vicinity of Gypsy Grove Summit. Instead of bringing this engine back to Dunmore to change crews, the crew working the second shift is taken from Dunmore to Gypsy Grove Summit, three miles, by auto, which auto also brings the first shift crew back to Dunmore. This not only saves a circuitous light engine movement, but also eliminates the interference of such movement with other trains, and increases the effective working time of the locomotive. Another example on the Erie is at Leavittsburg, Ohio, from which enginehouse a switch engine works two shifts in the busy industrial district of North Warren, three miles distant. Instead of having this engine make a round trip to Leavittsburg through heavy traffic single-track territory to change crews, the second shift crew is sent out by auto wherever the engine is working and this auto brings the first shift crew back to the terminal. These movements are in most cases handled by the automobiles of the callers employed by the Erie. These callers' autos are also used in handling billing from place to place, and also in handling mail and express from passenger stations to yards in certain instances where this traffic is handled by freight train.

Another instance where autos are used to advantage on the Erie is on the district between Huntington, Ind., and Chicago. All re-billing to western lines is done at Hammond, Ind., while the actual delivery takes place at 80th Street, Chicago. So far as possible, all waybills are forwarded from Marion, Ohio, to Hammond by passenger train and are ready for delivery by the time the freight train arrives. In all instances, however, where the freight trains leave Marion too late for the waybills to be sent on ahead by passenger train, the freight conductor delivers the bills to the agent's office at Hammond and the train proceeds. Meanwhile, the rebilling is done at Hammond, and the bills are sent to 80th Street by automobile, arriving there in time to avoid delaying deliveries to connections for paper work.

How Much Each Class of Motor Vehicle Paid, and How Much Each Class Was Subsidized, in 1932

	Amount Chargeable	Amount Paid	Subsidy per Vehicle
Passenger car	\$42.40	\$27.13	\$15.27
Truck, 1½ tons and less (private).....	96.40	51.43	44.97
Truck, 1½ tons and less (for hire).....	208.71	100.71	108.00
Truck, 3 and less than 5 tons (private)...	809.90	196.02	613.88
Truck, 3 and less than 5 tons (for hire)...	1,145.73	269.01	876.72
Truck, 5 tons (private).....	1,432.36	270.88	1,161.48
Truck, 5 tons (for hire).....	2,024.45	369.81	1,654.64
Truck, over 5 tons (private).....	1,705.53	356.40	1,349.13
Truck, over 5 tons (for hire).....	2,412.41	491.76	1,920.65
Bus, over 20 passengers (common carrier)	1,318.48	441.61	876.87

their ascertainment of expenditures and in their assignment of costs to the various classes of vehicles which use the highways. Basic in their approach has been the concept of highways as a public utility, as recently laid down in the federal court decision in the Illinois case *Brashear vs. Hughes*.

Ted V. Rodgers, president of the American Trucking Associations, issued a denunciatory statement on the re-

Truckers Testify on Lea Bill

A. T. A. representative denies that "subsidies" in the form of rights-of-way are enjoyed by trucks

WASHINGTON, D. C.

THE views of the motor carrier industry on the Lea omnibus railroad bill were given to the members of the House committee on interstate and foreign commerce when that committee resumed hearings on February 9. John V. Lawrence, general manager of the American Trucking Associations, Inc., led off for the trucking interests, telling the committee that his organization was the spokesman for 50 state associations of motor carriers. After submitting exhibits purporting to show the large contribution of the trucks to the support of the highways and the promotion of the public welfare through the employment and supplying of a modern transport service, Mr. Lawrence entered a denial of allegations that "subsidies" in the form of rights-of-way are enjoyed by motor trucks at the expense of the railroads, and urged that the rights of the trucking industry are entitled to consideration in the drafting of the proposed Transportation Act of 1939.

Mr. Lawrence touched on every phase of the motor truck's role in the national transportation picture and illustrated his testimony by charts and statistics. In particular, he dwelt upon the fact that trucks perform specialized services which railroads are unable to furnish economically, and give employment to several times the number of persons employed by the railroads.

Calls Motor Carrier Act "Successful"

Replying to charges that trucks are not now adequately regulated, he directed the committee's attention to what he termed the "successful operation" of the Motor Carrier Act of 1935, under which, he said, the Federal government has supervision over all interstate operations of trucks. In this connection he quoted the last annual report of the Interstate Commerce Commission, which said that the Motor Carrier Act "provides for the motor carriers . . . a system of regulation which is, if anything, more comprehensive than that which has been provided for the railroads."

"This 'more comprehensive regulation' of trucks exists in spite of the fact that Congress has been passing railroad legislation for 50 years," Mr. Lawrence asserted. "As to the nature of the competition between the motor carriers and rail carriers, a fair and impartial study will reveal interesting things," the witness said. "For instance, it will develop facts along the lines explored by Col. Leonard P. Ayres, economist of the Cleveland Trust Company. His study shows that railroads still carry 66 per cent of the nation's freight, while only five per cent is carried by trucks. In the period from 1909 to 1932, the trucks increased their percentage from two to five, but since that time they have shown little or no gain."

Says Trucks Help Railroads

Mr. Lawrence then told the House committee that this would seem to dispose of assertions that truck competition is in any way responsible for the present financial plight of the railroads. He contended that trucks actually

are helping the railroads by relieving them of carrying unprofitable less-than-carload shipments, and quoted a statement of Commissioner Eastman in support of his contention. Furthermore, the motor industry spokesman said that much of the traffic now carried over the highways has been developed by the trucking industry itself.

In this connection he advanced the argument that agriculture benefits through truck operations. "More than half of the live stock now moves to market over the highways," he pointed out, "this fast service enabling the grower to take full advantage of price fluctuations."

Contending that motor trucks are now bearing their full share of the burden of taxation for the upkeep of the highways they use, Mr. Lawrence said that in 1937, the latest year of complete record, motor truck owners contributed more than \$417,000,000 in special taxes alone. The railroad tax bill that year was \$325,000,000, he told the committee.

Concerning the provision of the Lea Bill, now before the committee, for the creation of a transportation administrator to make studies and recommendations looking toward the co-ordination of the services of the various modes of transport, Mr. Lawrence said that truck operators favor some such function either as a part of or outside the commission. Also, it would be difficult, he said, to find any one man with sufficient knowledge of all types of transportation to enable him to make recommendations that would carry sufficient weight. As a substitute, the witness advocated a board of at least three and preferably five members.

Would Welcome "Subsidy" Study

"We would welcome studies of alleged 'subsidies' by a fair and impartial body," Mr. Lawrence told the committee, "because we know that after it has made its investigation it will find that highway users have paid in special taxes every dollar of annual cost that was ever incurred in the construction and maintenance of improved highways. There has been so much propaganda put out in connection with alleged subsidized competition that it is time the public gets the truth."

Mr. Lawrence closed his testimony at the February 9 session by telling the committee that in 1937 trucks, constituting only 14 per cent of the total vehicles registered, paid 32 per cent of the total state registration and gas taxes. Some individual trucks are taxed as much as \$2,000 annually, he said.

At the beginning of the February 14 session, which was cut short and lasted only 20 minutes due to the fact that the Democratic members felt obliged to attend a Democratic caucus that morning, Representative Bulwinkle asked Chairman Lea if it would be possible for the committee to have the benefit of former Co-ordinator Eastman's long-awaited study on highway subsidies which has been announced for publication early this Spring, but has not appeared as yet. Chairman Lea thought that this would be possible and will take the necessary steps to get copies of it for the committee.

Mr. Lawrence continued his testimony by placing in the record the charge that American railroads "do not cut rates to meet motor carrier competition but that they do so in an effort to destroy motor carrier competition." He went on to point out to the committee that the railroads have been filing an average of 20,000 rate reductions a year since 1932.

Says Roads More Important Than Railroads

Taking up the contention that railroads are indispensable to the national defense, Mr. Lawrence quoted testimony before a House committee last year by Col. Russell P. Hartle, of the War Plans Division of the Army's General Staff, in which the latter declared that "war can be conducted without railroads but not without roads." This statement was made, according to Mr. Lawrence, in reference to the fact that special motor truck taxes are contributing more than \$400,000,000 annually to the construction and maintenance of the nation's highways.

Coming to the recommendation of the Committee-of-Six for a report within one year on an investigation of "subsidies" which may have been extended, as well as on the fitness and economy of every kind of carrier, Mr. Lawrence said that "None of these questions is static; they are dynamic. We doubt seriously whether any individual or group could prepare a complete, fair and impartial study of this kind in one year—unless they started with preconceived ideas and set out to prove them with statistical legdemon." "We recall that the Federal Co-ordinator of Transportation undertook a study of the subsidy question with respect to highway transportation back in 1933. In the summer of 1935, when the office of Federal Co-ordinator expired, the work was continued. It would seem to us somewhat illogical that, after all this time and effort has been spent on one study, a new and expensive study should be undertaken, at this time."

Is Anxious to See R. R. Prosper

"We welcome the creation of an administrative or co-ordinative body to determine the facts and give them to the public," he added. "We are anxious to see the railroads prosper, but no one can make the railroads or the nation prosperous by crippling the trucking industry. If a fair investigation were made this industry would be given a clean bill of health and, insofar as employment and public welfare is concerned, the railroad problem would become insignificant as compared with the national problem that would be created if the trucking industry were prevented from serving the public."

The A. T. A. spokesman concluded his testimony by saying that the motor carriers approve the provision of the Lea bill which permits the proposed transportation administrator to seek the establishment of through routes and reasonable joint rates between rail carriers and motor carriers. He closed by insisting that his people had been willing to enter into such joint rates with the railroads.

Beall is Second Witness

The second witness for the trucking interests was J. Ninian Beall, general counsel for the A. T. A., who began his testimony at the February 15 session of the committee. Mr. Beall began by telling the committee that the trucking industry is opposed to reorganization of the Commission as proposed in the Lea bill. Mr. Beall suggested that instead of increasing the number of commissioners from 11 to 19, Congress should give the

present membership more authority over carriers, and "a larger staff, more examiners, more inspectors." He said a proposal to increase the I. C. C. from 11 to 19 members and divide the membership into fixed groups charged with separate functions would make it impossible for individual commissioners to see "the whole picture," because they would be denied an opportunity to "deal with the entire subject matter." Moreover, he said, a larger commission would be "unwieldy" if called upon to act as a whole, "and if they had to act separately, they are bound to have a one-sided knowledge of transportation."

If Congress hopes to place the transportation industry on a profitable basis, said Mr. Beall, it must require carriers to charge rates that will insure fair return on prudent investment, above actual cost of performing the service. He said there were many railroad rates now in effect "which do not cover even the out-of-pocket cost of performing the service."

Mr. Beall opposed the practice of reducing rates to non-compensatory levels to meet competition for a particular type of freight, while making up the loss by increasing rates on commodities for which the competition is less keen. "All traffic should bear its proper proportion of distributed costs," he said. "Otherwise the burden is merely shifted to some other class of traffic."

Commenting on the proposal to require rail and motor carriers to establish and maintain joint through rates, he said both agencies must be assured a fair division of the joint rate. This cannot be accomplished, he asserted, if "imprudent" railroad investments are to be taken into consideration in arriving at railroad rates.

"This would simply mean that the public would have to underwrite the investors' mistakes and the trucking industry would also be faced with those mistakes in connection with divisions of joint rates."

The trucking spokesman said that the present difficulties of the railroads are traceable "almost entirely" to the period from 1870 to 1907 when, he said, "the construction and duplication of railroad facilities far exceeded the nation's requirements." He estimated that at present only about one-third of the total rail mileage "would fall in the class of 100 per cent prudent investment."

Places Value of Roads at \$12,880,000,000

"Another one-third or 80,000 miles of the total probably isn't worth over 50 cents on the dollar, because there is not and was not enough business to fully justify its construction," he said. "There is another one-third that probably has no railroad value whatever and never did have, because it cannot earn operating expenses." On this basis Mr. Beall estimated the present value of the railroad plant at \$12,880,000,000.

Mr. Beall warned against the possibility of blanket minimum rates which would disregard the inherent economic advantages of a particular form of transport. He said the section of the proposed legislation empowering the I. C. C. to prescribe minimum rates for all forms of transport "does not make it clear that inherent advantages must be considered."

Truck operators, said Br. Beall, favor co-ordination of the services of the "independent" transportation agencies, but are strongly opposed to establishment of rail-owned truck lines. He asserted the railroads already have filed applications with the I. C. C. seeking "to parallel practically every mile of railroad with one or more railroad owned truck lines."

In addition, Br. Beall urged:

Federal regulation of freight forwarding or consolidating companies, as well as trucking firms engaged in local pick-up and delivery service for the railroads.

Revision of the Motor Carrier Act to allow the I. C. C. to regulate intrastate rates where they burden interstate commerce.

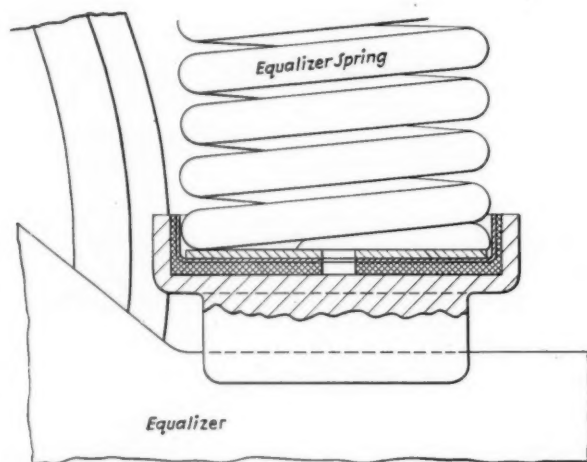
Equal treatment for all forms of transport with respect to receiving loans from the R. F. C.

Cork and Rubber Molded Sound Insulation

(Continued from page 306)

peculiarly adaptable for such an application. Rubber, on the other hand, under compression, must flow in some direction. This flow, or change of shape, causes a movement on the face and in the body of the material, and it is necessary to provide for this by placing holes, slots, or other means in the rubber, or in the confining metal. These holes, or slots, open the piece and permit lubricants and other materials to enter and attack the bond between the rubber and the metal. In addition, the tendency of rubber to flow tends to pull the stock away from the metal and destroy the vulcanized bond. In a compressible stock such as is used in these pads the flow is said to be in the direction of the applied force, which does not weaken the bond.

The use of the liners completely isolates the journal box from the pedestal and thus reduces the transfer of track noises and prevents their passing through the axle to the journal box into the body of the truck, except through the one remaining contact, which is the equalizer



Insulating Pad for Equalizer Springs

spring. Isolation of this spring is accomplished by the use of pads shown in the small drawing.

This isolation is obtained by means of the drawn steel cup into which the equalizer spring fits. This cup is reinforced at the bottom with a steel disc, which is electrically spot welded in place. The cup and disc have holes in the center to allow for drainage of water. The Armstrong cushion material is vulcanized to the bottom and outer edges of the cup flange in sufficient thickness to break the transmission of vibration and noise. The pads are generally of 1/2-in. thickness at the base and standard sizes are made for 8-in. and 9-in. springs.

These pedestal liners and equalizer spring pads can be used on both four- and six-wheel trucks. Their use breaks all metallic contact between the rail and car body.

New Books...

Locomotives of the Chicago & North Western Railway, by F. A. Cole, Wheaton, Ill. 75 pages. Bound in paper. Published by the Railway & Locomotive Historical Society, Inc., Baker Library, Harvard Business School, Boston, Mass. Price for members \$1.00; non-members, \$2.00.

This special bulletin of the Railway & Locomotive Historical Society follows a fashion in the study of locomotives of particular carriers set by a two-volume study of locomotives of the Chicago, Burlington & Quincy published by the society in 1937. Believing that the history of a railroad is to some degree the history of its locomotives, the author makes short shrift of construction, financial and traffic details of the Chicago & North Western and its constituents and gets on to his job,—that of setting down interesting and significant facts concerning virtually every known type of locomotive operated by the road and its predecessors from the "Pioneer" of the old Galena & Chicago Union built by Baldwin in 1836 down to the latest class E-4's of 1938. Following a textual discussion of the "collectors items", the author has prepared a 54-page roster of past and present motive power of the Chicago & North Western divided into coal burners, oil burners, shop transfer locomotives, oil-electric switchers, and gas-electric motor cars. Following this is a six-page list of the principal mechanical data concerning each class of locomotive as originally built, which furnishes a handy method of comparison of motive power from period to period and builder to builder. Several score of interesting photographs of earlier locomotives are interleaved with the locomotive lists.

Interstate Commerce Commission Law and Procedure, Cases and Materials, by Clarence A. Miller, LL.B., LL.M. 620 pages. 10 in. by 6 1/2 in. Bound in cloth. Published by the National Law Book Company, Washington, D. C. Price, \$12.

Here is a large volume which presents the essentials of procedure in Interstate Commerce Commission cases and the background of its powers and principles in the language of the courts and the Commission itself through the method known to law students as the case method. By this means, the reader is not only brought through the complications of administrative law logically, step by step, from the earliest common law principles of the regulation of common carriers to the late refinements of rate-making powers, but, at the same time, gains a speaking acquaintance with important basic legal decisions. Thus he will follow the steps in the broadening powers of the government over the transportation business not through a text-book "re-hash" but via the significant portions of such famous court cases as "Gibbons vs. Ogden" and "Munn vs. Illinois."

Most of the material in the book consists of excerpts from federal court decisions respecting the powers and procedure of the I. C. C. However, commission opinions themselves are given in part, and to cover matters not partaking of a strictly legal nature, portions of important speeches and articles are reprinted. Each excerpt is placed in logical position and, in the case of the more lengthy cases, the issues and the decisions are summarized by the author.

The book is especially valuable in that the author, who is general counsel of the American Short Line Railroad Association, has enjoyed wide experience with every type of I. C. C. and court case respecting railroad transportation. He is thus equipped to present the fine distinctions of switching allowances, divisions of rates, the long-and-short haul clause, etc., from the practical standpoint. Equally important is the fact that the material is right up-to-the-minute, and covers such controversial matters as switching allowances and reparations which remain yet unsettled and appear from day to day in the news.

Mr. Miller escapes the fault many scholars commit in being so thorough that the lay reader is left in a "muddle-minded" state. Most of the topics are treated exhaustively but with economy of material, and definite conclusions are aimed at whenever possible.

Beyond its functions as a mine of factual information, the volume is an excellent reference work for I. C. C. and legal decisions, and will be a valuable reference work for active practitioners before the Commission and for railroad officers generally.

NEWS

Employees Answer Feather-Bed Suit

Reply to Washington Terminal challenge of Adjustment Board decision

Counsel for the 54 employees of the Washington (D. C.) Terminal Company involved in the "feather-bed rule" case have filed in the United States District Court for the District of Columbia an answer to the Terminal Company's suit challenging the demand that it be required to employ special additional switch engine crews to back trains of empty cars between Washington Union Station and the storage yard. As pointed out in the *Railway Age* of January 7, page 100, the employees' demand is based on a recent Adjustment Board decision which ordered the Terminal Company to discontinue its practice of having the switching work performed by the road crews of its tenant railroads. The suit, asking a declaration by the court under the Declaratory Judgments Act, named the 54 employees as defendants instead of the brotherhoods to which they belonged; most of them are members of the Brotherhood of Locomotive Firemen & Enginemen.

The employees' answer, signed by six counsel headed by Frank L. Mulholland of Toledo, Ohio, sets up three defenses, the third leading up to the contention that the plaintiff is entitled to no relief because the Railway Labor Act's provisions, covering the right of employees to sue to collect a money award made in an Adjustment Board decision, provide for "the judicial review of awards and orders. . . especially adapted to the type of case, and that such method of enforcement and review is exclusive." In this connection the Terminal Company's complaint pointed out the employees, while demanding back pay, had started no court action to enforce their demands.

The dispute arose out of the interpretation of a contract executed by the Terminal Company and the employees involved on February 1, 1923; and while the employees contend that the suit has no standing, one part of their answer might be interpreted as a submission of the controversial contract to the court. "The defendants," it says, ". . . here allege, that the true intent and purpose of the said agreement was, and is, to provide that all work generally classified as that of yard engineers or firemen performed upon the tracks of the plaintiff, was and is to be done by the employees of the plaintiff ex-

Urges Tax-Free Rights-of-Way

A suggestion that the rights-of-way of the railroads should, by a legal fiction, be considered as federal property and hence operated free of state and municipal taxes in the interest of interstate commerce is the theme of an article by Arthur C. von Stein, public relations consultant, appearing in the current issue of the "Savings Bank Journal." Characterizing local taxes on the railroads as "termites along the right-of-way," the author cites the fact that states and communities have collected \$2,566,000,000 from the carriers in this fashion during the past ten years, or an average of \$256,000,000 per annum. And should the federal government decide to pour money into the roads through subsidies, loans or grants, Mr. von Stein is fearful that much of the funds will be drained off at the bottom by these local "termites."

Should the government actually take over the railroads the local politicians would lose their quarter-billion-dollar-a-year levy anyway. It seems to him, therefore, that to help prevent the drastic act of government ownership and operation, it would be a good plan to seek a middle way and permit the roads to "operate under business methods but without the necessity of paying local taxes along the right-of-way."

clusively, they too have rights to, and choice of, the said work in ratio of seniority."

The answer in general reviews the history of the controversy from the employees' point of view and winds up with a set of alleged reasons why the plaintiff "is entitled to no relief in the premises, and in particular is entitled to no relief by declaratory judgment."

Canadian Railway Club Elects

The Canadian Railway Club, Montreal, Que., has elected the following officers for 1939: President, E. P. Mallory, executive assistant, Canadian National; First Vice-President, J. E. Armstrong, chief engineer, Canadian Pacific; Second Vice-President, F. N. Wiggins, general superintendent, Canadian National Express; Secretary, C. R. Crook, safety inspector, Canadian National; Treasurer, P. P. Reynolds, building supervisor, Windsor station, Canadian Pacific.

McManamy Slight Stirs Rail Labor

Aroused by President's action in dropping veteran to appoint Alldredge

Just as a Senate sub-committee wound up the hearing phase of the controversy over his appointment of Thomas R. Amlie to the Interstate Commerce Commission, President Roosevelt last week drew the fire of railroad labor for dropping Commissioner Frank McManamy in favor of J. Haden Alldredge, advocate of inter-territorial freight rate readjustments, who has been director of the Tennessee Valley Authority's Commerce Department. As announced briefly in last week's issue, the President sent Mr. Alldredge's name to the Senate on February 9, at which time he also reappointed Commissioner William E. Lee for a new term expiring December 31, 1945.

Following a meeting of the Railway Labor Executives' Association in Washington on February 15, Executive Secretary J. G. Luhrs revealed that the Association had communicated to President Roosevelt its disappointment at the naming of Alldredge. Mr. Luhrs explained that the protest was not against Mr. Alldredge personally, but was based on R.L.E.A.'s feeling that it should be given consideration in selecting one of the commission's 11 members. He said that the Amlie appointment was not discussed at the meeting, and he did not indicate whether R.L.E.A. would oppose Senate confirmation of either Mr. Alldredge or Mr. Amlie. Meanwhile the Alldredge and Lee appointments have been referred by the Senate committee on interstate commerce to the same sub-committee which has the Amlie appointment under consideration.

Except for the period of the World War when he was assigned to the United States Railroad Administration, Mr. McManamy who is in his 69th year has been in the service of the I. C. C. for more than 30 years; he has been a commissioner since 1923. His latest term expired on December 31, 1937, but he has continued to serve under that provision of the Interstate Commerce Act which leaves an incumbent in office until his successor qualifies. It had been generally understood that the President's plan was to leave Mr. McManamy, who retained his membership in the Brotherhood of Locomotive Firemen & Enginemen and was regarded as a commissioner who understood labor's problems, undisturbed until he reached the age of 70.

Thus when it became known that he was being displaced labor was "sorely disappointed," as J. G. Luhrs, executive secretary of the Railway Labor Executives'



Frank McManamy

Association, put it. Mr. Luhrs went on to take the position that railroad labor should have been afforded an opportunity to make some recommendation as to a successor, if Mr. McManamy had to be replaced.

The reaction of the unions is developed more fully in an article appearing in the February 14 issue of "Labor" under the heading "Rail Labor Is Shocked When 'F. D.' Sets McManamy Aside." The article says that the union leaders were not only "shocked" but "keenly disappointed"—"In fact it would be even more



J. Haden Alldredge

accurate to say that the labor chiefs were 'fighting mad.' Next comes a review of Mr. McManamy's accomplishments, including his work of drafting or assisting in

drafting "every regulation now in force governing safety on the railroads."

When Mr. McManamy's term expired and the question of his remaining on the commission "hung fire," the article continues, a committee from the Railway Labor Executives' Association "waited on the President to urge McManamy's retention."

"They came away with the distinct impression that Mr. Roosevelt would not disturb McManamy 'for a long time,' and that when a change was contemplated the chiefs of the Standard Railroad Labor Organizations would be consulted about McManamy's successor. The latter point is important. For 35 years, or since President Theodore Roosevelt selected E. E. Clark, beloved president of the Order of Railway Conductors, for a place on the I. C. C., it has been conceded by all Presidents—Republicans and Democrats alike—that at least one of the commissioners should be a man familiar with the problems of railroad labor and, preferably, one who had had practical experience as a railroad worker."

Also, the article quotes one "railroad union chief" to the effect that the White House action "certainly runs counter to our understanding of what the President agreed to do." The quoted leader added that "railroad labor is not only to be deprived of representation on the commission, but the nation is to be deprived of the services of a public servant who has achieved unique distinction in an important field."

Mr. McManamy's only comment was as follows: "If we're going to encourage career men, why throw them out when they approach the retirement age? If we are going to have promotions through the Civil Service, why throw people out when they reach the top?" Meanwhile the commissioner has been represented as having been completely surprised by the President's action, since labor leaders had informed him of their understanding that he would not be disturbed until he reached the age of 70; and that he would be called into conference about a successor. It is understood that the President wrote a letter to Mr. McManamy just as he did to Commissioner Meyer when the Amlie nomination was sent to the Senate.

Discussions about Mr. McManamy's remaining on the commission until he reaches the age of 70 have included much talk about the commissioner's prospective pension. His friends point out, however, that this matter has not been a consideration in the commissioner's disposition to remain in service. He is now eligible for a pension of between \$1,200 and \$1,500 a year, and this would be increased by only about five per cent if he remained until his 70th birthday, September 3, 1940.

As pointed out in last week's issue, Mr. Alldredge is the author of a report on "Inter-Territorial Freight Rates of the United States," and has recently advocated the enactment of legislation which would bring about adjustments in the present inter-territorial railway rate structure. "Labor" introduces the nominee as one who is "variously described as 'a rate specialist' and a 'transportation expert' terms which may mean much or very lit-

tle." However, the latest edition of "Who's Who in America" lists Mr. Alldredge as a commerce attorney and transportation specialist who was born in Brooksville, Ala., on July 28, 1887, and graduated in 1907 from the Central Alabama Agricultural School. Later he received an LL.B. degree from Jones Law School, Montgomery, Ala. Mr. Alldredge began his career as a teacher, and then was in industrial traffic work for the nine years prior to 1919, when he became secretary and traffic manager of the Chamber of Commerce, Dothan, Ala. In 1923 the nominee, who had meanwhile in 1915 been admitted to the bar and to practice before the Interstate Commerce Commission, was appointed chief of the Transportation Bureau of the Alabama Public Service Commission. He remained in that position until 1934 when he was appointed transportation economist for T. V. A. with headquarters at Knoxville, Tenn. Last April Mr. Alldredge was appointed director of T. V. A.'s Commerce Department, described in a T. V. A. press release of April 19, 1938, as "one of the departments created during the recent reorganization of the Authority—another step in the development of a navigation channel in the Tennessee river for commercial use." In his new assignment, the announcement went on, "Mr. Alldredge will supervise technical and economic studies of water transportation and its relationship to rail, highway, and air transportation."

In addition to the above-mentioned report on inter-territorial freight rates, Mr. Alldredge is listed as author of Rate-Making for Common Carriers (1929); editor of Watkins Shippers and Carriers (4th edition); and co-author of a report entitled "A History of Navigation on the Tennessee River System."

Commissioner McManamy was born at Fallen Timber, Pa., on September 3, 1870, and was educated at a Pennsylvania normal school and at Traverse City (Mich.) Business College. He was appointed assistant chief inspector of the Bureau of Locomotive Inspection in 1911, and served as chief inspector from 1913 until 1918. During the 1918-20 period he was assistant director of transportation for the United States Railroad Administration; and from 1920 until 1923 the chairman of its committee on design of standard locomotives and cars, and in charge of construction and maintenance of all railway equipment. As noted above, Mr. McManamy has been a member of the I. C. C. since 1923, and has served also as chairman of the commission's committee on safety appliance rules. In addition to his membership in the B. of L. F. & E., Mr. McManamy has been a member of the American Society of Mechanical Engineers, and the Traveling Engineers Association, and an honorary member of the Air Brake Association.

New York Warehousing Order Postponed

The Interstate Commerce Commission has further postponed until April 1, the effective date of its order in the case involving warehousing and storage of property by carriers at the port of New York—Part VI of the general Ex Parte 104 investigation of Practices of Carriers Af-

fecting Operating Revenues and Expenses. The commission's order in this case was recently upheld by the United States Supreme Court, as noted in the *Railway Age* of January 14, page 130.

Hearing on Florida Canal

The Senate committee on commerce has set March 15 as the date for hearings on S. 1100, the bill introduced by Senator Sheppard, Democrat of Texas, to provide for the completion of the Florida Ship Canal.

R. R. Credit Corp. Moves to Baltimore

The office of the Railroad Credit Corporation has been moved from the Transportation Building in Washington, D. C., to the Maryland Trust Building, Baltimore, Md.

C. of G. Derailment Kills Three

Freight train No. 29 of the Central of Georgia was derailed at a damaged switch at Sargent, Ga., on February 7, causing the death of the conductor, fireman and head brakeman. The switch had been damaged by a dragging brake-beam in a car on southbound freight train No. 38.

Enthusiast Activities

The Hartford, New York, Worcester and New England divisions of the Railroad Enthusiasts, Inc., will hold a joint dinner and meeting at the University Club, Hartford, Conn., at 1 p. m., on February 26. Motion pictures will be shown following the dinner and the Hartford Model Railroad Club will present an exhibit.

A Correction

A misstatement was made in the biographical sketch of William H. Winterrowd in announcing his appointment as vice-president of the Baldwin Locomotive Works, on page 247 of the *Railway Age* of February 4, 1939. Mr. Winterrowd accompanied Sir George Bury to Russia in 1917, but was not a member of Lord Milner's Mission. Sir George was invited to join Lord Milner's Mission by the British Prime Minister. Mr. Winterrowd accompanied Sir George throughout his travels. They did not traverse every mile of railroad in Russia, but did cover a large proportion of the railways in that country. Sir George made his report directly to the Honorable David Lloyd George of England.

Status of D. & R. G. W. General Yardmasters

Examiner Earl M. Steer has recommended in a proposed report that the Interstate Commerce Commission find that general yardmasters, terminal trainmasters and trainmasters of the Denver & Rio Grande Western are subordinate officials subject to the Railway Labor Act. The examiner would not, however, have the finding construed as preventing the D. & R. G. W. from designating one general yardmaster at Denver, Colo., and one at Salt Lake City, Utah, "with authority to employ, dismiss, or discipline employees, and thus stamp them as officials."

The proposed report points out how the

case grew out of a dispute which arose in a proceeding before the National Mediation Board to determine who had the right to represent the D. & R. G. W. yardmasters. The contending unions were the Brotherhood of Railroad Trainmen and the Railroad Yardmasters of America.

Club Meetings

The Railway Club of Pittsburgh will hold its next meeting on February 23 at the Fort Pitt hotel, Pittsburgh, Pa. C. Vernon Thomas, special representative, Public Relations department, Baltimore & Ohio, Baltimore, Md., will present a paper entitled "Transportation in the Metropolitan District in Connection with the World's Fair 'New York'." In addition, a vocafilm with sound recordings produced by the Association of American Railroads, and entitled "This Railroad Business," will be shown.

The Traffic Club of New York will hold its 32nd annual dinner at the Commodore hotel, New York, on February 21. It is expected that some 3,000 traffic executives, shippers and railroad men will attend. The guest speaker will be Congressman Dewey Short of Missouri.

The Metropolitan Traffic Association will hold its next meeting on February 23 at the Hotel Imperial, New York, at which time the highlights of past activities will be reviewed.

"Stand Up and Fight" Features Historic B. & O. Equipment

A "Knock 'em down, drag them out" motion picture having as its theme bitter competition between the early Baltimore & Ohio between Baltimore, Md., and Cumberland and an entrenched stage-coach line has recently been released by Metro-Goldwyn-Mayer and is currently being shown in first-run theatres in New York. Briefly, as the plot goes, a bankrupt Maryland aristocrat, in the person of Robert Taylor, obtains a post with the B. & O.

as special agent to investigate the activities of the competing Bullet stage line operated by the redoubtable Wallace Beery. The two fight it out, several love plots enter upon the scene and ultimately it resolves that the Bullet Line is sold to Wells Fargo express interests. The picture closes with a race toward the west involving a B. & O. train and one of the defeated stage-coaches.

The old "William Galloway" locomotive of the road, which appeared in Paramount's "Wells Fargo," made its second film appearance in the picture, this time with the proper title of ownership on the tender, together with a group of Imlay-type, double-decked B. & O. coaches. These were shipped in gondolas over 3,000 miles of road to "location" in the "big tree" country in the Butte meadows near Chico, Cal., chosen by the producers as the one place in California where the scenery is most like that of the Alleghenies. Here the staff was housed in Chico and each day climbed up into the mountains to film the antics of the William Galloway on a stretch of track of the Diamond Match Company. Some 4,300 ft. up in the Sierra Nevadas the old engine was kept under steam, taking water from the tank of a Shay geared locomotive owned by the lumber road.

John Strine, machinist at the Mt. Clare shops of the B. & O., and L. W. Sagle, public relations representative of the road, were on constant duty during production of the picture to advise and supervise operation of the equipment. An article describing their experiences appears in the current issue of the Baltimore & Ohio Magazine.

Sweden's Biggest Private Line to Electrify 143 Miles

The electrification of approximately 143 miles of line is now under way by the Bergslagens Railways, Sweden's largest privately-owned system. Covering the two



The Baltimore & Ohio's "William Galloway" and a Stage Coach of the Bullet Line Race, it Out Near Cumberland, Md., in the New Motion Picture, "Stand Up and Fight"

main lines of the company,—the Gothenburg Mellerud-Amal and Mellerud-Kornsjo routes, the project is expected to be completed next summer. The latter route is part of an international line between Central Europe and Norway and together with electrification of the line of the Norwegian State railway between Oslo and the Swedish frontier at Kornsjo, will furnish a complete electrified line between Malmo, Sweden, and Oslo, Norway, via Gothenburg.

The Swedish General Electric and other manufacturers have received orders totaling some 6,000,000 krona (\$1,434,000) for electric locomotives in connection with the project, and the first unit in a series of nine has recently been delivered. Rated at 2,000 hp. the locomotive is built for a maximum speed of 68 m. p. h.

January Gross Up 8.3 Per Cent Over 1938

Preliminary reports from 92 Class I railroads, representing 82.8 per cent of total operating revenues, made public on February 15 by the Association of American Railroads, show that those roads, in January, had estimated operating revenues amounting to \$250,608,497 compared with \$231,346,269 in the same month of 1938 and \$276,137,442 in the same month of 1937. The January gross was 8.3 per cent above January, 1938, and 9.2 per cent below January, 1937.

Freight revenues of the 92 Class I roads in January, amounted to \$201,455,446 compared with \$179,877,942 in January, 1938, and \$222,959,793 in January, 1937—12 per cent above the former but 9.6 per cent below the same month in 1937. January passenger revenues totaled \$29,237,117 compared with \$31,520,938 in January, 1938, and \$31,311,619 in January 1937; they were 7.3 per cent below January, 1938, and 6.6 per cent below the same month in 1937.

Traffic on San Francisco Bridge Heavy

Nearly 90,000 persons a day are being handled through the San Francisco terminal of the Interurban Electric Railway and the Key System which have been operating interurban service over the San Francisco-Oakland Bay Bridge since January 15. A total of 520 trains move in each direction in 24 hr., while during the peak hours of 4 to 6 p. m. more than 40,000 persons board the trains of the two companies. Departure is rapid, trains moving at intervals of 63-1/2 to 70 sec. under the regulation of an elaborate automatic cab signal and speed control system.

While the inauguration of interurban electric service on the bridge sounded the death knell for the historic ferry boats which for years provided interurban and commuter service across the bay, the ferry boats Alameda and Santa Clara are continued in service between the San Francisco Ferry Building and Oakland Pier to meet all main line passenger trains of the Southern Pacific. Connection from San Francisco to Oakland Pier for main line trains to and from the Sacramento and San Joaquin Valleys, Portland, and the East by way of the Overland Route, is still made by ferry from the Ferry Building at the

foot of Market Street in San Francisco. Coast Line trains continue to arrive and depart from 3rd and Townsend street Station in that city.

Freight Car Loading

Revenue freight carloading for the week ended February 11 totaled 579,918 cars, the Association of American Railroads announced on February 16. This was an increase of 3,128 cars, or 0.5 per cent over the preceding week, an increase of 36,927 cars, or 6.8 per cent over the corresponding week in 1938, but a decrease of 108,605 cars, or 15.8 per cent below the 1937 figure.

As reported in last week's issue the loadings for the previous week ended February 4 totaled 576,790 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings			
For Week Ended Saturday, February 4			
District	1939	1938	1937
Eastern	131,152	119,455	157,180
Allegheny	112,492	105,921	147,298
Pocahontas	41,183	40,682	45,064
Southern	91,937	92,947	90,913
Northwestern	66,700	67,044	76,958
Central Western	89,389	90,276	100,665
Southwestern	43,937	48,415	53,149
Total Western Districts	200,026	205,735	230,772
Total All Roads	576,790	564,740	671,227
Commodities			
Grain and Grain Products	29,544	32,282	28,211
Live Stock	11,371	11,450	10,689
Coal	132,908	129,394	155,496
Coke	7,871	6,459	12,176
Forest Products	25,538	26,257	32,595
Ore	9,062	6,447	9,598
Merchandise			
L. C. L.	146,138	148,002	158,258
Miscellaneous	214,358	204,449	264,204
February 4 ...	576,790	564,740	671,227
January 28 ...	594,379	553,176	653,022
January 21 ...	590,359	570,233	665,346
January 14 ...	586,877	580,740	696,035
January 7 ...	530,849	552,568	700,046

Cumulative Total, 5 Weeks 2,879,254 2,821,457 3,385,676

In Canada.—Carloadings for the week ended February 4 totaled 40,531, as compared with 45,175 last year and 40,175 in the previous week—according to the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Feb. 4, 1939.....	40,531	22,452
Jan. 28, 1939.....	40,175	22,421
Jan. 21, 1939.....	41,678	23,148
Feb. 5, 1938.....	45,175	22,141
Cumulative Totals for Canada:		
Feb. 4, 1939.....	198,450	112,409
Feb. 5, 1938.....	224,978	111,430
Feb. 6, 1937.....	231,514	133,959

S. P. Begins Los Angeles-Yuma Overnight Freight Service

Fast overnight freight service for the handling of less-than-carload shipments from Los Angeles to Yuma, Phoenix and Tucson, with co-ordinated truck service from those points to other southern Arizona cities, was inaugurated by the Southern Pacific on February 1. The new train, named the Arizona Overnight, provides first morning delivery in Yuma and Phoenix, and first afternoon delivery in Tucson. The train leaves Los Angeles daily, except Sundays and holidays, after the close of the business day, and reaches Yuma the following morning at 2:35 a. m. Pacific time, Phoenix at 7:35 a. m. Mountain time, and Tucson at 11:15 a. m. Mountain time. The

trucking facilities of the newly acquired Peoples Freight Line are used to provide local store door deliveries with a saving in time of 24-hr. The new service is arranged to connect with the San Francisco-Los Angeles Overnight and thus provide second morning service from the San Francisco Bay district to Yuma and Phoenix and second afternoon service to Tucson.

Buffalo Freight Loss and Damage Program Draws Many Employees

The Central Railway Club of Buffalo, N. Y., reports that a total of 700 persons, representing 24 transportation organizations and including 364 freight station employees, were in attendance at a freight loss and damage prevention program held in Buffalo on February 9. Talks on the subject were presented by several representatives of the Association of American Railroads, the traffic manager of the Niagara Alkali Company, and a property protection officer and a mechanical officer of the New York Central and the Delaware, Lackawanna & Western, respectively. The audience, which included a total of 590 registered railroad men, 54 receivers and shippers of freight and 43 others, represented some 122 positions and included transportation men from 35 different cities and towns. Included in the representation were 47 yard masters and trainmasters, 20 special agents of freight claim departments, 15 claim prevention employees, 51 freight agents, 27 freight inspectors and 364 freight station employees.

Bankers' Association Head Says Earnings Are Chief Need

To make railroad bond investments at all attractive there must be some way of obtaining more earnings for the roads. This was the opinion of Philip A. Benson, president of the American Bankers' Association and of the Dime Savings Bank of Brooklyn, N. Y., in a speech delivered before the mid-winter trust conference of the Association's Trust division in New York on February 14. Pointing out that railroad investments are causing particular concern to savings banks and that net earnings have declined "almost to the vanishing point," the speaker saw some encouragement in the increasing awareness of the seriousness of the railroad situation by labor, management and government. Speaking of reorganization procedures, Mr. Benson declared that "making it easier to reorganize a road, while desirable, does not of course make railroad bond investments any more attractive." More earnings are the answer to the investor's problem. "Until the railroad situation is very much clarified, savings and trust funds will not be attracted to the industry."

Model Railway Exhibitions at New York

An amateur and a commercial model railway show opened their doors concurrently on February 11 in New York, under the sponsorship of the New York Society of Model Engineers and the Association of Model Railroads Manufacturers, Inc., respectively. The amateur exhibit, the 11th annual offered by the model society, is being held in the new quarters of the or-

ganization at 152 W. 42nd street, where an extensive track system has been partially completed to allow for "skeleton" operation. When completed, the layout will consist of the "O"-gauge "Union Connecting" line and the smaller "00"-gauge tracks of the "Union Dock Terminal" road on a lower level.

A feature of the commercial exhibit, the second to be held, is a complete model counterpart of the famous "Orient Express" of the Continental European roads between Paris and Constantinople. Another is a section of track and equipment similar to that which will be used by the Eastern railroads in their model exhibit "Railroads at Work" at the New York World's Fair. Both shows will run until February 25.

Italy Sends High-Speed Electric Train to N. Y. Fair

Two of the three cars of a super-speedy, streamlined multiple-unit electric train,—to be the principal exhibit of the Italian State Railways at the New York World's Fair,—arrived in New York on the "Rex" on February 3. Upon landing the cars were removed from the tourist-class deck of the liner where they were placed for the voyage and shipped by lighter to Long Island City. Here it is planned to place them on their trucks and haul them over the Long Island's trackage to the fair site. The third car is being shipped separately and will arrive on a later boat.

The exhibit train comprises three articulated units resting on four four-wheeled trucks. There are six traction motors having a combined rating of 1,500 hp. The train operates from a 3,000-volt, d.c. overhead contact system.

Two motors are mounted on each of the end trucks of the train and one on each of the two intermediate articulated trucks. Transmission to the wheels is effected by a quill drive. Electro-pneumatic multiple-unit control permits the operation of two or more three-car articulated units as one train. Braking equipment is fitted with an automatic decelerator which releases air-pressure and prevents wheel-locking at lower speeds. Two brake shoes are applied to each wheel. The decelerator device, known as the Beda distributor, is being widely adopted by the Italian system.

The train is air-conditioned throughout and provides dining facilities by the use of detachable tables set up in the coach

seats. All seats are air-filled and reclining. The first car contains crews' quarters and baggage, mail and kitchen facilities. The second and third cars contain 46 and 54 seats, respectively.

Car ends and external tops are of streamlined design and shrouding covers the lower portion of the cars to within 9.84 in. of the rail. Car bodies are of all-welded tubular design and of aluminum alloy construction. There is a motorman's cab at each end of the train to provide for either-way operation; a telephone line connects the two.

Trains of this design were first introduced by the State railways in 1937 and are now in high-speed service on the so-called "Direttissima" between Milan, Bologna, Florence, Rome and Naples. One train on the 130.5-mile route between Rome and Naples has been scheduled to make the run in 90 minutes and an average start-to-stop speed of 84 m.p.h. has been maintained between Bologna and Florence. The exhibition train has a top speed of 125 m.p.h.

I. C. C. Orders Investigation of Rates on Automobiles

The Interstate Commerce Commission has instituted upon its own motion an investigation into the lawfulness of rates, charges, rules, regulations and practices surrounding the transportation of new automobiles in interstate commerce by railroad, common and contract motor vehicles, including the so-called "haul-away," "drive-away" and "tow-bar" methods, and common carriers by water. The commission's action came after consideration of a petition filed by the National Automobile Transporters Association, a division of American Trucking Associations, Inc.; and the investigation is with a view "to determining and prescribing just and reasonable rates, charges, rules, regulations and practices thereafter to be observed, including minimum rates and charges and the relation, if any there should be, of rates and charges as between the said respective forms of transportation. . . ." The order did not set the date for the opening of hearings.

The competitive struggle for this automobile traffic was recently brought to the fore in publicity surrounding the unsuccessful attempt of the National Automobile Transporters Association to have the com-

mission suspend a Michigan Central tariff publishing reduced rates, effective January 7, on the traffic involved. The Association's protest against this tariff was reviewed in the *Railway Age* of January 14, page 126.

Motor Carrier Records

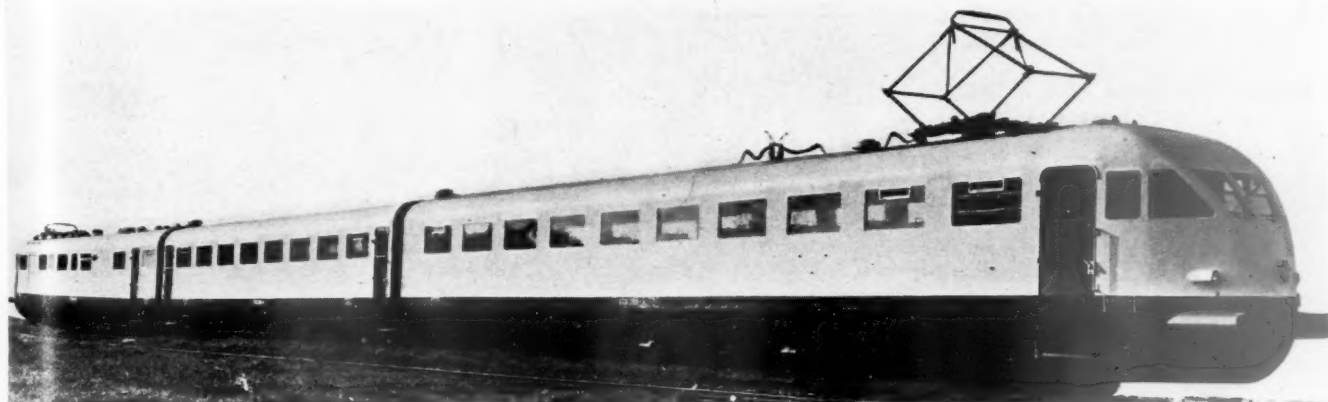
The Interstate Commerce Commission has issued a notice to motor carriers and brokers, warning of penalties which may be incurred for failure to observe the commission's regulations with respect to the preservation of records and the uniform systems of accounts.

The notice which is signed by I. C. C. Secretary W. P. Bartel reads in part as follows: "Numerous instances of violations of the regulations and of the provisions of Section 220(b) have come to our attention, particularly with respect to preservation of records and memoranda; lack of detail supporting expenditures and other book entries; failure by Class I carriers to adopt the uniform system of accounts; and failure to provide prompt access to accounting and other records to our authorized special agents and accountants. In many instances it has been found that public accountants engaged by motor carriers have removed general books, financial data, working papers, supporting documents, memoranda, etc., from the carrier's place of business. It should be understood that a carrier's records should be readily accessible to our agents at the carrier's place of business, either at its general offices, division offices or terminals."

Examinations to be Given For Mediator Jobs

The United States Civil Service Commission has announced competitive examinations for the positions of principal mediator at \$5,600 a year, senior mediator at \$4,600 a year; mediator at \$3,800 a year, and associate mediator at \$3,200 a year with the National Mediation Board and the Maritime Labor Board. Applications for the examination must be in the hands of the commission by March 6, if received from States east of the Rocky Mountains and by March 9 if received from Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

The duties of the positions will involve generally labor mediation work in the rail-



This Articulated, High-Speed Electric Train Will be Exhibited by the Italian State Railways at the New York World's Fair

road and maritime fields and will involve much travel with little time spent in Washington. Competitors will not be required to **report for written examination** at any place, but will be initially rated on the extent of their education, and on the extent and quality of their experience and fitness which are relevant to the duties of the position applied for. If conditions permit, says the commission, an oral examination will be given to a sufficient number of competitors in the order of their standing to meet the needs of the service.

Detailed information as to qualifications required for these positions may be secured from the United States Civil Service Commission in Washington, D. C.

New Fuel Efficiency Record

A new record in fuel efficiency in freight service was established by the railroads of the United States in 1938, according to J. J. Pelley, president of the Association of American Railroads. In that year an average of 115 lb. of fuel was required to haul 1,000 tons of freight and equipment a distance of one mile. This was the best average ever attained by the railroads since the compilation of these reports began in 1918.

The average in 1938 was a reduction of 33.1 per cent compared with 1920, in which year it was 172 lb. It also was a reduction of two lb. compared with 1937 and a reduction of four lb. compared with 1936.

For each lb. of fuel consumed in freight service, the railroads in 1938 hauled 8.7 tons of freight and equipment a distance of one mile, which also was the best average that has ever been established. In 1937 the average was 8.6 tons, but in 1920 it was only 5.8.

In the passenger service, the railroads in 1938 used 14.9 lb. of fuel in order to haul a passenger train car one mile. This was a decrease of one-fifth lb. compared with 1937 and a decrease of two-fifths lb. compared with 1936. Fuel efficiency in the passenger service, using the same basis of compilation, was nearly 21 per cent better in 1938 than in 1920 when the average was 18.8 lb.

Improvements in the construction of new locomotives, modernization of old locomotives, continued progress in scientific methods of treating boiler water in order to eliminate so far as possible ingredients harmful to locomotives, and improved methods of railroad operation have been among the factors responsible for the almost constant increase in fuel efficiency that has taken place on the railroads of this country in the past twenty years, the statement says.

Several Railroad Bills Offered in Congress

Senator Sheppard, Democrat of Texas, has introduced in the Senate S. 1299, a bill authorizing and directing the Interstate Commerce Commission to investigate inbound and out-bound transportation rates in Texas. The bill directs the commission to make the investigation "with a view to correction of any discrimination or unfairness in connection with such rates".

Representative Gathings, Democrat of Arkansas, has offered a bill, H. R. 3749, which would amend the Interstate Commerce Act in regard to rates for transpor-

tation between rate-making or geographical sections of the United States designated for rate-making purposes. This bill is similar to those which have already been introduced by various southern senators and representatives to correct alleged discrimination against the South in the matter of railroad freight rates.

Representative Smith, Democrat of Virginia, has introduced a bill, H. R. 4048, which provides for a survey with preliminary estimates of cost for the construction of railroad and automobile truck tunnels under the Potomac River in Washington, D. C.

Representative Sweeney, Democrat of Ohio, has offered a bill, H. R. 4050, which would provide for the transportation and distribution of mails on motor-vehicle routes. The commission would be given power to fix fair and reasonable rates for motor-vehicle transportation of mail.

The Senate has adopted S. Resolution 63, requesting the Secretary of the Interior to report present opinion of the Geological Survey with respect to the probable effect of construction of the Florida Ship Canal, and S. Resolution 64, requesting the Department of Commerce to survey previous findings with respect to the Florida Ship Canal, bring them down to date and report its present conclusions to the Senate.

The committee on banking and currency of the House has approved H. R. 4012 (H. R. 3383 as amended) extending the lending power of the Reconstruction Finance Corporation until January 15, 1941.

Representative Bulwinkle, Democrat of North Carolina, has introduced a bill (H. R. 4075) to amend section 15 of the Interstate Commerce Act so as to give the I. C. C. power over minimum as well as maximum rates in cases where one of the carriers involved in a joint rate is a water line. Representative Cole, Democrat of Maryland, has introduced H. R. 4077 which would authorize the I. C. C. to make travel and subsistence allowances to state commissioners sitting with the I. C. C. H. R. 4076, also introduced by Mr. Bulwinkle would fix standard time as the measure of time for all purposes and make it govern all transactions in interstate commerce. Legislation along these three lines was recommended by the I. C. C. in its latest annual report.

Chairman Lea of the House committee on interstate and foreign commerce has introduced H. R. 4103 which would amend

the law covering reimbursement of carriers for claims arising out of federal control. H. R. 4105, introduced by Representative Weaver, Democrat of North Carolina, would amend the law relating to the transportation of explosives. H. R. 4089, introduced by Representative Pace, Democrat of Georgia, proposes to amend the Railroad Retirement Act to provide annuities for railway employees who are totally and permanently disabled and have completed 20 years of service.

Express Agency's L. C. L. Service Case Remanded to Commission

The status of pick-up and delivery of railroad l. c. l. freight in intrastate shipment performed by the Railway Express Agency, Inc., in Pennsylvania is to be reconsidered by the state Public Utility Commission by direction of the State Superior Court. The commission had ruled that the service is a common carrier operation separate and distinct from the express business and ordered the Agency to obtain proper authorization therefor. This takes a stand opposite to that of the Interstate Commerce Commission in its Scott Brothers decision which ruled that collection and delivery services are to be considered a part of railroad service and subject to Part I of the Interstate Commerce Act.

The court's decision remands the case to the state regulatory body for consideration of further evidence to determine the extent to which the performance of l. c. l. pick-up and delivery is a part of express operations covered by rights already held by the Agency. Meanwhile, the commission has permitted the Agency to continue its collection and delivery service at the several points in the state where it was already performed at the time of its original ruling in April, 1938.

The "8 Spot" Runs Again

The Dardanelle & Russellville, a seven-mile railroad in western Arkansas, has again received prominence, after a quiet life of 50 years, as a result of the rebuilding of the "Old 8 Spot," a two-car passenger train with funnel-stacked locomotive for the picture "Jessie James" now showing on the screen. The "8 Spot" was built exactly 50 years ago and pulled the first troop train in Arkansas for the Spanish American War. The photograph is printed through the courtesy of J. G.



The 8 Spot

Puterbaugh, president, McAlester, Oklahoma.

House Passes Independent Offices Bill

The House has passed and sent to the Senate H. R. 3743, the Independent Offices Bill for the year ending June 30, 1940, which carries the appropriations for the Interstate Commerce Commission, the National Mediation Board and the Railroad Retirement Board. The House adopted the totals for these three agencies which were recommended by the committee on appropriations.

The bill provides \$8,908,000 for the commission, which is an increase over the amount appropriated for the same functions in 1939 of \$382,000 and is a decrease under the Budget recommendation of \$22,000. The increase over the 1939 figure is the net result of an increase of \$2,000 (from \$100,000 to \$102,000) for signal safety systems, an increase of \$2,000 (from \$471,000 to \$473,000) for locomotive inspection, an increase of \$400,000 (from \$3,250,000 to \$3,650,000) for motor transport regulation, and of a decrease of \$2,000 under general administrative expenses reflected by the reduction of the salaries of the 11 commissioners from the statutory amount of \$12,000 each to \$10,000 each. The remaining activities of the commission will be continued at their present appropriation levels.

For the National Mediation Board the bill includes the Budget estimate of \$148,700, an increase of \$8,000 over the amount appropriated for 1939. The committee report points out that this increase will provide the Board with two additional mediators to enable more expeditious handling of labor disputes. The National Railroad Adjustment Board would receive \$198,930 for salaries and expenses, a reduction under the Budget of \$6,670.

The bill, as passed by the House, provides for the Budget estimate of \$3,200,000 for salaries and expenses for the Railroad Retirement Board, which is an increase of \$615,000 over the amount appropriated for 1939. The committee report states that it "also approved the Budget estimate of \$165,000 increase over 1939 to enable the Board to dispose of the 59,500 claims for annuities and death benefits estimated for 1940, including 14,500 cases which cannot be disposed of during 1939 due to the abnormal load resulting from the passage of the 1937 Retirement Act; and for examining and maintaining approximately 1,500,000 designations of death beneficiaries which it is required to maintain."

For the retirement account the House voted the Budget estimate of \$120,150,000, which is an increase of \$1,900,000 over the amount appropriated for 1939.

This year's bill provides, for the first time, that the salaries of the Interstate Commerce Commissioners, the Maritime Commissioners, and the members of the Civil Aeronautics Authority shall all be fixed at the same figure, \$10,000 a year despite the fact that the laws creating these three transportation regulating bodies provides that they shall receive \$12,000 a year. The committee report points out that

for several years the House and Senate have been voting only \$10,000 a year for the Interstate Commerce Commissioners and the Tariff Commissioners and that this year, which is the first time that appropriations have been made for the Maritime Commission and the Civil Aeronautics Authority, the committee decided to make the salaries uniform at \$10,000.

November Accident Statistics

The Interstate Commerce Commission's completed statistics of steam railway accidents for the month of November, 1938, now in preparation for the printer, will show:

Item	Month of November		11 months ended with November	
	1938	1937	1938	1937
Number of train accidents	513	588	5,210	7,796
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	139	149	2,153	2,444
Injured	158	154	2,308	2,478
Passengers on trains:				
(a) In train accidents*				
Killed	3	52	3
Injured ..	56	99	434	487
(b) In train-service accidents				
Killed ..	1	..	14	12
Injured ..	138	151	1,659	1,797
Travelers not on trains:				
Killed	1	1	9	12
Injured	58	64	663	695
Employees on duty:				
Killed	41	50	440	614
Injured	1,412	1,547	14,631	21,961
All other nontrespassers:**				
Killed	150	185	1,416	1,883
Injured	595	638	5,020	6,494
Total—All classes of persons:				
Killed	332	388	4,084	4,968
Injured	2,417	2,653	24,715	33,912

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than \$150 to railway property.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Number of accidents..	381	433	3,050	4,018
Persons:				
Killed	136	167	1,295	1,686
Injured	454	528	3,535	4,610

Construction

CANADIAN PACIFIC.—A contract amounting to approximately \$75,000 has been awarded the Northern Construction Company, Vancouver, B. C., for improvements and additions to the Canadian Pacific Pier "BC" at Vancouver.

CHICAGO, ROCK ISLAND & PACIFIC.—A contract has been awarded Joseph Haigh & Sons, Chicago, for the erection of a new one-story, brick passenger station on the main line at 95th Street, Chicago, which will cost approximately \$5,000.

CHICAGO, ROCK ISLAND & PACIFIC.—Three contracts have been awarded, amounting to a total of approximately

\$150,000, for work on this road's Mississippi River bridge at Inver Grove (near St. Paul), Minn. The Sterling Electric Company, St. Paul, Minn., has been awarded a contract for electrifying the swing span of this bridge and installing color light signals on the bridge. A contract for the material needed to rehabilitate the turning mechanism and to strengthen the bridge throughout to Coopers E-65 rating, has been awarded the American Bridge Company, Pittsburgh, Pa., and the contract for the erection has been awarded to E. K. Ketler, Chicago.

INDIANA HARBOR BELT—Directors of the Indiana Harbor Belt have accepted, on behalf of the company, an ordinance passed by the City Council of the City of Chicago, providing for the relocation of a short portion of the Chicago & Western Indiana from its present location across the Municipal Airport, Chicago, to the north paralleling this company's right of way. This also involves a sale by this company to the city of three parcels of land owned but not now needed for company purposes and also necessitates the construction of a new interlocking plant at the crossing of the Indiana Harbor Belt and Chicago & Western Indiana tracks. The ordinance was passed in connection with the proposed enlargement of the Municipal Airport.

LEHIGH VALLEY.—The New York Public Service Commission has directed the elimination of the Main street crossing of this road at Romulus, N. Y., by depressing the highway and carrying it under the raised grade of the railroad in a manner similar to that previously ordered.

Equipment and Supplies

Rock Island to Buy Streamlined Trains

The Chicago, Rock Island & Pacific is inquiring for two or seven streamlined trains. Two of the trains to be used between Chicago and Denver, Colo., will each contain a 2,000 hp. Diesel-electric locomotive, one baggage car, two coaches, one dining car, two sleeping cars and one observation lounge car. The schedule of these trains, to be known as the Colorado Rockets, has not yet been determined, but they will operate on a schedule faster than that of the Rocky Mountain Limited. The trains will run from Chicago to Limon, Colo., where they will be divided, one train running to Colorado Springs, and the other to Denver.

FREIGHT CARS

THE ILLINOIS CENTRAL is asking informally for prices on 1,000 hopper cars.

THE CHICAGO & NORTH WESTERN is considering the purchase of 900 freight cars.

THE INTERSTATE COMMERCE COMMISSION, by Commissioner McManamy, has

authorized the American Car & Foundry Co. to construct for use in experimental service 50 additional tank cars with tanks fabricated by fusion welding instead of forge welding. The cars would be used in further service tests in the transportation of petroleum products. The report reveals that the commission has previously authorized the construction of a total of 527 fusion-welded tank cars for experimental service in the transportation of dangerous articles other than explosives. See *Railway Age*, February 11, pages 278 and 282.

IRON AND STEEL

THE ST. LOUIS-SOUTHWESTERN has ordered 1,000 tons of rails from the Tennessee Coal, Iron & Railroad Company.

THE CHICAGO & NORTH WESTERN is considering the purchase of 20,000 tons of rails.

THE CHICAGO, ROCK ISLAND & PACIFIC has ordered 41,000 tons of rails, placing the tonnage with the Carnegie-Illinois Steel Corporation, the Inland Steel Company and the Colorado Fuel and Iron Company.

SIGNALING

NEW YORK CENTRAL SYSTEM.—Sealed proposals will be received at the office of C. C. Warne, purchasing agent, New York City, until 10:00 a. m., standard time, March 14, for the furnishing of signal material to be used in connection with the flashlight signals at State Road 76, two miles east of Grafton, Ohio.

MARYLAND.—Sealed proposals will be received by the State Roads Commission at its office, Federal Reserve Bank building, Calvert and Lexington streets, Baltimore, Md., until 12 M., February 23, for the furnishing and delivering of signal materials for the installation of wigwag type highway crossing signals at Vardo, Washington County, Md. J. Glenn Beall is chairman and L. H. Steuart, secretary.

ATCHISON, TOPEKA & SANTA FE.—Sealed proposals will be received at the office of the general purchasing agent of this road, Railway Exchange building, Chicago, until 10:00 a. m. (c.s.t.), March 6, for the furnishing of material necessary for the installation of three highway grade crossing projects under the federal grade crossing program in the State of Illinois.

BINGHAM & GARFIELD.—Sealed proposals will be received in the office of the purchasing agent of this road until 12:00 o'clock noon (mountain time), February 28, for furnishing the necessary material for two railroad grade crossing flashing light signal installations, to be installed under the federal grade crossing program in the State of Utah. Further information may be obtained through J. D. Carter, assistant purchasing agent of this road, Room 704, Kearns building, Salt Lake City, Utah.

MOTOR VEHICLES

THE SANTA FE TRAIL TRANSPORTATION COMPANY has received delivery of one 36-passenger bus from the American Car & Foundry Motors Company.

Supply Trade

Chicago Railway Equipment Company

The annual report of the Chicago Railway Equipment Company for 1938 shows a loss from operations after deducting manufacturing, selling and administrative expenses, of \$40,987 as compared with a profit of \$916,925 in 1937. After other income and depreciation of plant and equipment the loss for the year, carried to surplus, amounted to \$61,758.

General Railway Signal Company Annual Report

The General Railway Signal Company reports for the year ended December 31, 1938, a gross operating profit, before maintenance, repairs and depreciation, of \$1,032,499 and a net loss for the year of \$133,352, as compared with a gross operating profit for 1937 of \$2,008,815 and a net income of \$645,150. During the year the company paid its regular 6 per cent dividend on preferred stock and 25 cents per share on outstanding common stock out of earned surplus. Paul Renshaw, president, in his accompanying statement declares that orders booked during 1938 were 54 per cent of the average volume for the five years ended December 31, 1937, and but 48 per cent of sales in 1937. Orders filled were 99 per cent of the five year average and 64 per cent of those for 1937. Unfinished orders on hand at the end of 1938 were 33 per cent of the five year period and 30 per cent of those on hand at the end of 1937.

American Brake Shoe & Foundry Co. Annual Report

The American Brake Shoe & Foundry Co., in its report for the year ended December 31, 1938, declares consolidated net sales for the year of \$19,042,148, and net income for the year of \$1,080,719, which, after preferred dividends, equals \$1.03 per share on the common stock outstanding. This compares with consolidated net sales of \$28,345,831 in 1937 and net income of \$3,410,799, equal to \$4.01 on common stock. Shipments during 1938, which were lower than in any year since 1935, constitute 66 per cent of those in 1937.

The statement of W. B. Given, Jr., president of the company, in discussing some recent developments of the company's operations, points out that the company has designed new reinforcements for locomotive and freight car brake shoes which have substantially overcome breakage due to pieces of wearable metal falling out while in service and increased the service life of each type of shoe about 15 per cent. It is estimated that the railroads' annual cost of brake shoe service would be \$1,000,000 less with these improved shoes than with those having the unimproved reinforcements. It is also reported that newly-developed carbon insert shoes on high speed trains will give better friction characteristics and longer life.

Indicated sales distribution by industries in 1938 shows that 48.2 per cent of the company's total sales consisted of rail-

road operating material, .7 per cent of new railroad equipment and 2.2 per cent of new railroad construction. Some 6.1 per cent of sales were to electric railroads, while the remainder were to automotive mining, refining and excavating and miscellaneous interests. During the same period the sales of National Bearing Metals, a subsidiary company, were 65 per cent to steam railroads, 9 per cent to electric railroads and 26 per cent to other industries.

J. C. Rinehart, sales manager for A. P. DeSanno & Sons, Philadelphia, Pa., has been elected vice-president of the **Eagle Grinding Wheel Company**, Chicago.

Frederick W. Copeland, has been elected president of the **Sullivan Machinery Company**, Michigan City, Ind. Mr. Copeland previously served for 21 years with the company, leaving the position of vice-president and comptroller in 1934, to become president of the Channon Company, Chicago. He recently resigned this latter position to take over his new duties with the Sullivan Machinery Company.

John W. Lohnes, for the past three years in the office of the **Vanadium Corporation of America**, at Chicago, has been appointed assistant to the general manager of sales, with headquarters at 420 Lexington avenue, New York. Prior to his association with the Vanadium Corporation of America, Mr. Lohnes was with the Carnegie-Illinois Steel Corporation, at Chicago.

George W. Morrow, for the last 13 years a sales representative of the **Ingersoll-Rand Company**, in Chicago, in charge of maintenance of way and bridge and building equipment sales, has been appointed general sales manager of the **Reade Manufacturing Co., Inc.**, Jersey City, N. J. Mr. Morrow, who will be in charge of all railway sales of this company, will be located at a new sales office established by the company at 9 S. Clinton Street, Chicago. Mr. Morrow was born at Hackensack, N. J., on January 21, 1891, and served 19 years with the New York, New Haven & Hartford, including 10 as supervisor of track. On June 1, 1926, he became associated with the Ingersoll-Rand Company. He has been actively associated with a number of railway clubs, including the Metropolitan Track Supervisors' Club, of which he was president in 1921, and the Roadmasters and Maintenance of Way Association, of which he was president in 1926. He is now a director of the Maintenance of Way Club of Chicago and of the Bridge and Building Supply Men's Association.

Lem Adams who has been elected vice-president of **The Oxweld Railroad Service Company**, Chicago, was graduated in civil engineering, from the Texas Agricultural and Mechanical College and entered railway service in June, 1909, in the engineering department of the Union Pacific as a rodman. In June, 1911, he was made an estimator and served in this position and as chief draftsman until March, 1916, when he was promoted to assistant division engineer. Mr. Adams was appointed an engineering accountant in the

LIMA POWER AT WORK



Making Schedules with More Cars

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following year, and in 1918, he became contract engineer. After a year in this position, he was transferred to the Union Pacific unit of the System with the title of



Lem Adams

special field engineer in the maintenance of way department, then being advanced to roadway assistant for the System at Omaha in April, 1920. On May 15, 1929, Mr. Adams was further promoted to general supervisor maintenance of way for the System at Omaha, which position he retained until September 16, 1931, when he was appointed engineer maintenance of way of the System. In January, 1933, he was promoted to chief engineer of the Union Pacific and of the St. Joseph & Grand Island. In August of that year, he resigned to become chief engineer of The Oxweld Railroad Service Company. Mr. Adams has taken an active part in railroad associations and technical societies. He was formerly a member of the Board of Direction of the American Railway Engineering Association. He is now president of the Track Supply Association.

OBITUARY

William A. Yager, president of the Arms-Yager Railway Car Company, Chicago, died at Palm Beach, Fla., after a long illness, on February 11.

Edward H. Dewson, who was relieved of active duties as district engineer at New York of the Westinghouse Air Brake Company in January, 1922, and since that time served as consulting engineer of the company, died in St. Joseph's Hospital, Tampa, Fla., on February 9, from injuries received a few days previously in an automobile accident.

TRADE PUBLICATION

THE WELDING OF WROUGHT IRON.—This is the title of a new 16-page booklet compiled by A. M. Byers Company, Pittsburgh, Pa. It supersedes and brings up-to-date the first edition produced early in 1934. Much progress in the welding of wrought iron has been made since this time, and the new data in the bulletin is based largely on recent tests, to which has been added considerable practical information obtained from the field.

Financial

ALABAMA CENTRAL.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized this company to abandon its entire line extending from Booth, Ala., in a general southerly direction to Forrester, 5.3 miles.

ATCHISON, TOPEKA & SANTA FE.—*Abandonment by the California, Arizona & Santa Fe.*—The Interstate Commerce Commission, Division 4, has authorized this company to abandon operation and the California, Arizona & Santa Fe to abandon its Poland branch, extending generally westward from Poland Junction, Ariz., to the end of the line, 1.5 miles.

BALTIMORE & OHIO.—*Assents to Bond Plan.*—Following the regular monthly meeting of the board of directors of this road in New York on February 15, it was announced that deposits and assets had been received from 78.26 per cent of the securities affected by its plan for modification of interest charges and maturities.

CANADIAN PACIFIC.—*Omits Preferred Dividend.*—Directors of this company, meeting in Montreal on February 13, decided to omit the payment of a dividend on its preferred stock for 1938. It was explained that, while all charges and taxes were met, with a moderate surplus remaining, it was decided that the year's performance did not justify a payment.

CINCINNATI UNION TERMINAL.—*Bonds.*—This company has asked the Interstate Commerce Commission, for authority to issue \$12,000,000 of its first mortgage bonds, series E, to replace \$12,000,000 of first mortgage five per cent gold bonds, series C, to be redeemed May 1. The new bonds will bear interest at the rate of 3¾ per cent, will be dated February 1, 1939, and will mature February 1, 1969. At the same time the Cincinnati, New Orleans & Texas Pacific; the Norfolk & Western; the Cleveland, Cincinnati, Chicago & St. Louis; the New York Central; the Louisville & Nashville; the Pennsylvania; and the Chesapeake & Ohio have asked the commission for authority to assume liability as guarantor for the payment of the bonds.

A banking group headed by Lehman Brothers, New York, were successful bidders for the issue on February 14, at the price of 106.763.

MISSOURI-KANSAS-TEXAS.—*Bonds.*—The Interstate Commerce Commission, Division 4, has authorized this company to pledge to and including December 30, 1941, as a part of the collateral security for any or all of this company's notes totaling \$2,824,000 to the Reconstruction Finance Corporation, \$250,000 of prior lien mortgage five per cent bonds, series E.

NEW YORK CENTRAL.—*Bonds of the Cleveland, Cincinnati, Chicago & St. Louis.*—The Interstate Commerce Commission, Division 4, has authorized the Cleveland, Cincinnati, Chicago & St. Louis to issue \$29,040,000 of refunding and improvement mortgage bonds, series F, to be delivered

at par to the New York Central. The commission has also granted authority to the New York Central to assume liability, as lessee, for the bonds pursuant to the terms of a lease now in force. The bonds will bear interest at the rate of 4½ per cent per annum, and will mature on January 1, 1964.

MISSOURI PACIFIC.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized the trustee to abandon a branch line extending from Carthage Junction, Mo., westerly to the end of the track at Asbury, 17.8 miles.

NEW YORK, CHICAGO & ST. LOUIS.—*Stock Exchange Lists Notes.*—The New York Stock Exchange has authorized listing of \$12,826,500 of three-year 6 per cent notes of this road, due October 1, 1941. These notes had been extended for three years from October 1, 1938, at which date a part of the issue had become due. In its application for listing on the exchange, the Nickel Plate stated: "The company has sufficient funds to settle all suits which may be brought upon the remaining notes of this issue. It also has available sufficient funds to pay all interest which will become payable on its obligations, and all principal of its equipment trust obligations which will mature, on or before April 1, 1939, and expects to pay the same when due. It now appears that reorganization of the company under the provisions of Section 77 of the Bankruptcy Act, because of inability to meet its three-year 6 per cent notes due Oct. 1, 1938, will not be necessary."

NEW YORK, NEW HAVEN & HARTFORD.—*Reorganization.*—The Interstate Commerce Commission, Division 4, has postponed from February 27, to March 27, the date for public hearing on this company's amended plan of reorganization. Commissioner Mahaffie and Examiner Wilkinson will hear the case.

NEW YORK, ONTARIO & WESTERN.—*Reorganization.*—The Interstate Commerce Commission, Division 4, has set April 18 as the date for public hearings in Washington, D. C., on this company's plan of reorganization. Examiner Jewell will preside at the hearings.

NEW YORK, SUSQUEHANNA & WESTERN.—*Reorganization.*—The Interstate Commerce Commission, Division 4, has ordered that the matter of the method or formula of segregating and allocating the earnings and expenses of this company between and to the divisions and parts of the railroad or other property of the debtor which are separately subject to the liens of various mortgages or deed of trust, or are separately subject to lease, be assigned for public hearing before Examiner Bernhard in Washington, D. C., on March 7.

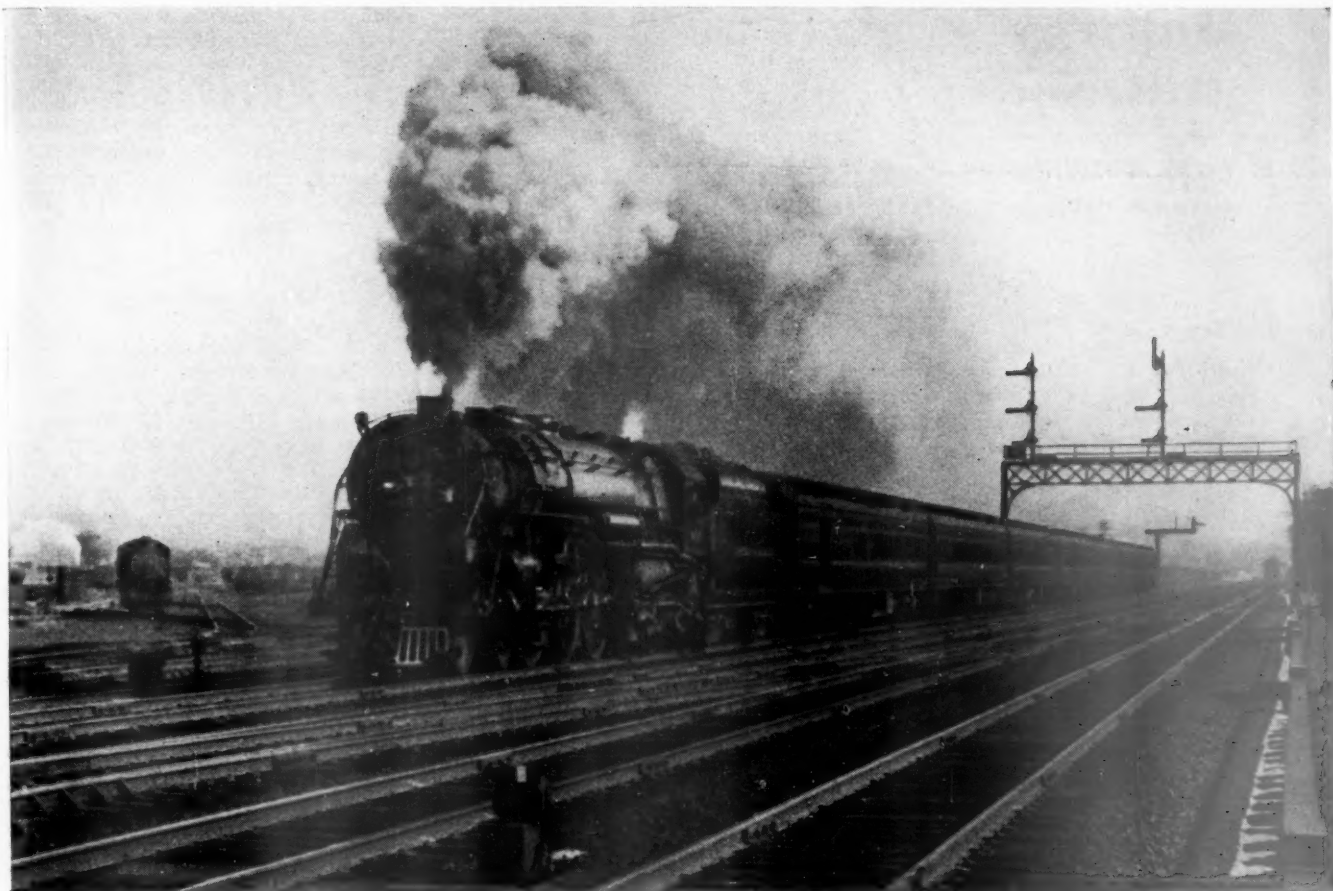
Dividends Declared

Cincinnati, New Orleans & Texas Pacific.—Preferred, \$1.25, quarterly, payable March 1 to holders of record February 15.

Average Prices of Stocks and Bonds

	Feb. 14	Last week	Last year
Average price of 20 representative railway stocks..	30.38	30.26	29.77
Average price of 20 representative railway bonds..	61.35	61.67	63.57

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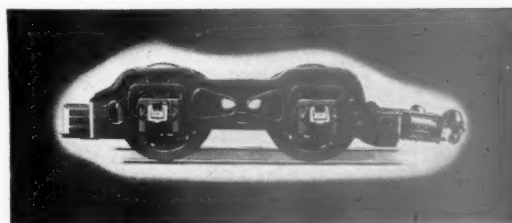


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» » » But large driving wheels make starting more difficult, since wheel loads must be limited in the interest of lower destructive effect on track at the higher speeds. » » »

Long trains need more starting power than is available in locomotives that only have adequate power for operating at high speeds. » » » When the design is supplemented by the Locomotive Booster these high speed locomotives are better balanced and overcome the deficiencies in starting power and acceleration. Schedules are maintained and passengers ride in comfort.



When maintenance is required, a replacement part assumes importance equal to that of the device itself and should be purchased with equal care. Use only genuine Franklin repair parts in Franklin equipment.



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NEW YORK

CHICAGO

MONTREAL

Railway Officers

EXECUTIVE

Charles Arthur Becker, whose appointment as vice-president and general manager of the Despatch Shops, Inc., at



Sibley, Lindsay & Curr's

C. A. Becker

East Rochester, N. Y., was noted in the *Railway Age* of January 7, was born on December 27, 1885, at Rochester, N. Y. Mr. Becker attended the public schools of Rochester and Rochester Athenaeum and Mechanics Institute. He entered the service of the Merchants Despatch Transportation Company (now Despatch Shops, Inc.) as clerk in May, 1908. In October, 1913, he was appointed chief clerk to superintendent and in August, 1923, assistant to vice-president and general manager. Mr. Becker became assistant general manager in October, 1937, the position he held until January 1, when he was appointed vice-president and general manager and director.

Harry R. Cole, assistant to the vice-president of the operating department of the Erie, with headquarters at Cleveland,



Harry R. Cole

Ohio, retired on February 1 because of ill health. Mr. Cole was born at Central

Valley, N. Y., on December 6, 1877, and entered the service with the Erie on February 1, 1897, as a telegrapher. In 1910 he was promoted to chief dispatcher on the New York division, and in 1912 he was advanced to trainmaster. During the next few years he was successively assistant superintendent of the New York division, superintendent of the Susquehanna division, regional operator at Hornell, N. Y., transportation and safety inspector at New York and regional operator for the Eastern district of the Erie. In the latter part of 1927, Mr. Cole was promoted to superintendent of the Wyoming division and of the Wilkes-Barre & Eastern (Erie), with headquarters at Dunmore, Pa., and in April, 1931, he was advanced to assistant to the vice-president, with headquarters at New York, later being transferred to Cleveland.

FINANCIAL, LEGAL AND ACCOUNTING

C. G. Whitworth, general accountant of the Missouri Pacific, with headquarters at St. Louis, Mo., has been promoted to assistant auditor, with the same headquarters, succeeding **C. B. Milsom**, who has retired.

Mr. Whitworth was born near Frederick-



C. G. Whitworth

town, Mo., on November 13, 1876, and entered the service of the Missouri Pacific in the accounting department in January, 1903. He resigned two years later but was re-employed in the accounting department in May, 1907. After service in various capacities, he was promoted to chief traveling auditor, and was further advanced to general accountant on April 1, 1926.

Mr. Milsom entered the service of the Missouri Pacific in October, 1884, as a clerk in the office of the auditor of disbursements. In 1900, he was transferred to the bookkeeping department and five years later was promoted to chief bookkeeper. He was advanced to general accountant in 1918 and on April 1, 1926, he was promoted to assistant to the vice-president in charge of accounts. Mr. Milsom was appointed assistant auditor in January, 1928.

H. K. Pinkney has been appointed acting treasurer of the Peoria & Pekin Union, with headquarters at Peoria, Ill., succeeding **Eugene T. Gibbons**, whose

death on February 5, was announced in the *Railway Age* of February 11.

L. A. Fritts, traveling accountant on the Gulf Coast Lines of the Missouri Pacific, has been promoted to auditor of freight and passenger accounts and of overcharge claims, with headquarters at Kingsville, Tex., succeeding **J. F. Ector**, who has been given a leave of absence because of illness.

OPERATING

A. B. Kelly, superintendent on the International Great Northern (Missouri Pacific Lines) with headquarters at Palestine, Tex., has been promoted to assistant general manager of the Gulf Coast Lines of the Missouri Pacific, with the same headquarters, succeeding **L. A. David**, whose death on January 11, was announced in the *Railway Age* of February 4. **L. A. Gregory**, assistant superintendent of the Gulf Coast Lines, with headquarters at DeQuincy, La. has been advanced to superintendent on the International Great Northern to replace Mr. Kelly.

Francis J. Nugent, whose promotion to superintendent of the Western division of the Chicago, Rock Island & Pacific, with headquarters at Fairbury, Neb., was announced in the *Railway Age* of February 4, was born at Waterloo, Iowa, on April 15, 1878, and graduated in civil engineering from the University of Iowa in 1903. He entered railway service after graduation as a material clerk on the Rock Island at Silvis, Ill. Later he transferred to the engineering and maintenance of way department and in 1909, he was promoted to roadmaster, with headquarters at Cedar Rapids, Iowa. Later that year he was appointed assistant engineer, with the same headquarters, and in 1910, he was placed in charge of the construction of a yard at Cedar Rapids. In 1911, he was advanced to office engineer, with headquarters at Chicago, and on February 1, 1912, he was promoted to division engineer, with headquarters at Little Rock, Ark. He then served as division engineer and office engineer on various divisions on the Rock Island, later being appointed division engi-



Francis J. Nugent

neer of the Nebraska-Colorado division, with headquarters at Fairbury. On January 1, 1929, he was transferred to the

WOULD YOU SPEND...

1 dollar



TO SAVE...

10 dollars



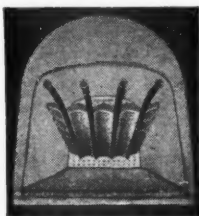
You accept locomotive arches as a matter of course; as a fundamental in locomotive design. But the Arch can only give you the full economy when each course and each arch brick is in place. Paring down the arch in an effort to save \$1.00 costs you \$10.00 for the extra fuel wasted by the shortened arch.

These proportions have been established by repeated tests on various types of motive power. So against any "saving" in arch brick expense by cutting down the arch, mark up \$10.00 on the loss side of the ledger.

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Iowa division, with headquarters at Des Moines, Iowa, and in June, 1930, he was advanced to trainmaster on that division. Mr. Nugent was later transferred to Fairbury, the position he held at the time of his recent promotion.

Ivan Delafield Irwin has been appointed superintendent passenger transportation of the Chesapeake & Ohio at Richmond, Va., as noted in the *Railway Age* of February 11. He was born on September 22, 1888, at Grayson, Ky., and, after a public school education entered railroad service on May 1, 1903, with the Chesapeake & Ohio as messenger at Ashland, Ky. Mr. Irwin was appointed telegraph operator, Ashland-Big Sandy division on August 1, 1904; train dispatcher on July 1, 1910, and car distributor on April 1, 1914, on that division. On October 1, 1914, he was appointed night chief train dispatcher, Huntington division; on March 1, 1917, chief train dispatcher, Handley Coal district; and on November 1, 1917, was transferred in the latter capacity to the Ashland-Big Sandy division. Mr. Irwin was appointed chief car distributor of the system on July 1, 1919, and became assistant superinten-



Dementi

I. D. Irwin

dent transportation on January 1, 1922, the position he held until February 1, when he was appointed superintendent passenger transportation.

R. C. Johnston, superintendent of terminals of the Canadian National, with headquarters at Montreal, Que., has been appointed also general superintendent of the Montreal district, succeeding **T. C. Hudson**, who has retired on pension after more than half a century of railway service. **H. M. Gain**, assistant superintendent of the St. Lawrence division, has been appointed superintendent of that division, with headquarters as before at Montreal.

Mr. Johnston entered the service of the Grand Trunk as station assistant in the transportation department at Novar, Ont., in 1906, being transferred to Stayner, Ont., in the same capacity in 1907, and to Thornbury, Ont., in 1908. He then served as telegraph operator at Beeton, Ont., Orillia, Huntsville and Hawkestone, and as relieving station agent at various points on the northern division of the Grand Trunk line between Toronto and North Bay. In 1912 he became agent at Campbellford, Ont.,

and in 1919 was transferred to Montreal as division agent, which position he held until 1926 when he became superintendent of terminals. Mr. Johnston will continue his duties as superintendent of terminals.



R. C. Johnston

Mr. Hudson was born at Brockville, Ont., and began his railroad career as a call boy with the Canadian Pacific at Carleton Junction in 1886. He served successively as machinist apprentice, machinist, chargehand and erecting shop foreman, until 1906, when he was appointed locomotive foreman at Ottawa, Ont. In 1907 he joined the Canadian Northern Ontario as foreman at Parry Sound, Ont., and was appointed master mechanic at Shawinigan Falls, Que., the same year. In 1908 he was transferred to Quebec and to Joliette, Que., in 1910 in the same capacity. With the formation of the Canadian National Railways in 1918 Mr. Hudson was appointed general master mechanic, Eastern lines, with headquarters at Montreal. When the amalgamation of the Canadian National-Grand Trunk Railways took place in 1923, Mr. Hudson was appointed assistant general superintendent of motive power, Central region, at Toronto. This position he retained until June, 1929, when he was appointed general superintendent



H. M. Gain

of operation, Southern Ontario district. In June, 1936, Mr. Hudson became general superintendent of the Montreal District, the position he held until his retire-

ment. During the World War Mr. Hudson was in charge of locomotives handling all trains for troop movements to and from Valcartier. Mr. Hudson is a past president of the Canadian Railway Club of Montreal and of the International Fuel Association, Chicago, Ill. He also assisted in the formation of the Railway Club in Toronto and was elected its first president in 1931.

Mr. Gain entered the service of the Grand Trunk in 1894 as office boy when he was 15 years of age and joined the staff of the Canadian Express Company as messenger at Montreal in 1898. He served as route agent of the express company at Richmond, Que., from 1904 to 1910, after which he became train inspector and trainmaster for the Grand Trunk at Montreal during the following year. After serving as trainmaster at Belleville, Ont., and Richmond, Que., he was appointed assistant superintendent of the former Portland division at Richmond in 1924. In 1927 Mr. Gain was transferred to the St. Lawrence division as assistant superintendent, the position he held until his recent appointment as superintendent of that division.

TRAFFIC

Barton M. Croll, assistant general freight agent of the Reading, has been



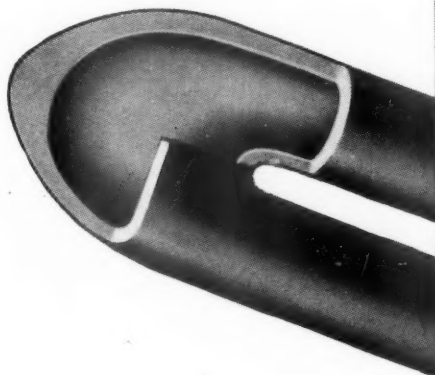
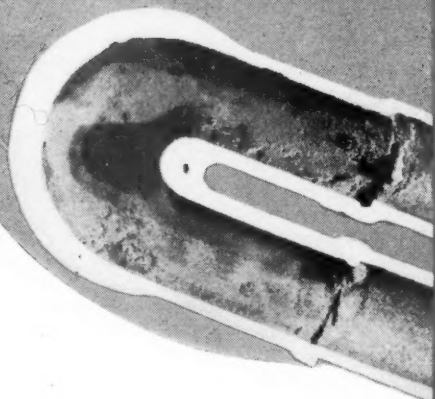
Barton M. Croll

appointed assistant freight traffic manager, with headquarters as before at Philadelphia, Pa., as reported in the *Railway Age* of February 11. Mr. Croll entered the service of the Reading in 1908 as a messenger at Wayne Junction, Philadelphia, subsequently becoming a clerk. On June 1, 1912, he became soliciting freight agent and seven years later was appointed special agent in the freight department. On April 6, 1922, Mr. Croll was appointed general agent in New York City and a year later became division freight agent, Philadelphia division. On May 1, 1928, Mr. Croll was appointed assistant general freight agent, which position he retained until February 1, when he was appointed assistant freight traffic manager.

H. H. Riddle, commercial agent on the Kansas City Southern at San Antonio, Tex., has been promoted to general agent at Lake Charles, La., succeeding **F. E. Farr**, deceased.

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ENGINEERING AND SIGNALING

Chauncey S. Robinson has been appointed assistant chief engineer of the Boston & Maine, the Maine Central and the Portland Terminal Company, with headquarters at Boston, Mass., as noted in the *Railway Age* of February 4. Mr. Robinson entered the service of the Maine Central as a rodman on July 1, 1909, and in



Chauncey S. Robinson

October, 1912, he was appointed assistant engineer. In 1919 he was promoted to general supervisor maintenance of way and five years later his title was changed to engineer maintenance of way. In January, 1936, Mr. Robinson was appointed assistant engineer maintenance of way of the Maine Central and the Boston & Maine. He held the latter position until July 1, 1937, when he was promoted to assistant chief engineer of these roads, with headquarters at Portland, Me., where he remained until his recent appointment. In the capacity of assistant chief engineer at Boston, Mr. Robinson assumes new duties carrying increased authority and responsibility.

SPECIAL

H. A. Daake, telephone maintainer on the Erie, with headquarters at Rochester, Ind., has been promoted to supervisor of safety with headquarters at Cleveland, Ohio.

Andrew N. Bimson, supervisor of personal records of the Erie, with headquarters at Cleveland, Ohio, has been appointed supervisor of employment and personal records, a newly-created position, with the same headquarters.

Patrick H. Mackin, chief special agent in charge of the police department of the Delaware, Lackawanna & Western, at Hoboken, N. J., died suddenly on February 3 at his home in Orange, N. J., at the age of 62.

OBITUARY

John Henry Walsh, vice-president of the Quebec Central, with headquarters at Sherbrooke, Que., died on February 12 at his home in that city, at the age of 78. Mr. Walsh was vice-president and general man-

ager of the Quebec Central from 1927 until January 1, 1931, when he was relieved at his own request of active management of the railway, but continued in a consulting capacity as vice-president and director. Mr. Walsh also served as president of the Temiscouata Railway from 1911 to 1936.

F. E. Farr, general agent for the Kansas City Southern at Lake Charles, La., died on January 26.

George Lewis, former general manager and chief engineer of the Moffat Tunnel Commission of Colorado, died at Denver, Colo., on February 5.

J. Harry Skillen, assistant freight traffic manager on the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, died suddenly of a heart attack in Cleveland, Ohio, on February 9. Mr. Skillen was born in Elizabeth, N. J., on February 16, 1870, and entered the service of the Milwaukee in the New York traffic office in 1894. He subsequently served in various positions at Buffalo, N. Y., Pittsburgh, Pa., and Boston, Mass. In 1917, he was appointed general agent at Chicago, and in June, 1925, he was promoted to assistant freight traffic manager with the same headquarters.

Frank B. Bowes, who retired on July 1, 1928, as vice-president in charge of traffic of the Illinois Central, died of pneumonia on February 15 in New Orleans, La. Mr. Bowes was born in Chicago on January 29, 1862, and entered railway service at the age of 14 as a clerk in the office of the auditor of the Illinois Central. Later he served as a clerk in the freight and passenger offices and in 1886 he was promoted to general northern passenger agent at Chicago. In 1894, Mr. Bowes was promoted to assistant general passenger agent, with headquarters at New Orleans, La., and the following year he was advanced to general freight agent of the Southern lines of the Illinois Central, including the Yazoo & Mississippi Valley, with the same headquarters. In 1900, his headquarters were transferred to Louisville, Ky., and on January 1, 1903, he was promoted to assistant traffic manager, with headquarters at Chicago. He was further advanced to freight traffic manager in 1906, and in 1909 he was promoted to general traffic manager. Mr. Bowes was elected vice-president in charge of traffic on March 1, 1911.

Colonel Charles L. Whiting, superintendent of the Chicago Terminal division of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, died following a lingering illness on February 13, in Hot Springs, Ark. Colonel Whiting was born in Danvers, Mass., on January 31, 1874 and entered railway service on the Boston & Maine in 1890. In 1897, he went with the New York Central & Hudson River, (now part of the New York Central system) serving in the engineering department, and in 1902, he went with the Northern Pacific in the engineering department. In 1907, he entered the service of the Milwaukee as a roadmaster on western construction work, and in 1912, he was promoted to superintendent of construction. He was appointed division

superintendent in 1914, and was located at Lewistown, Mont., at the time he left to serve overseas with the 13th Engineers of the U. S. Army. Colonel Whiting returned in July, 1919, and was reappointed superintendent of the Northern Montana division, with headquarters at Lewistown. In January, 1920, he was transferred to the Trans-Missouri division, with headquarters at Mobridge, S. D., and on July 1, of that year, he was transferred to the Milwaukee Terminal division, with headquarters at Milwaukee, Wis. Colonel Whiting was transferred to the Chicago Terminal division in May, 1923.

Clarence M. Booth, traffic manager of the Pere Marquette, with headquarters at Detroit, Mich., whose death on January 19 was reported in the *Railway Age* of January 21, was born at Marietta, Ohio, on December 14, 1876, and entered railway service in October, 1895, as a clerk for the Flint and Pere Marquette (now the Pere Marquette). On May 1, 1896, he was promoted to traveling freight agent, with headquarters at Toledo, Ohio, and on June 1, 1899, he was appointed commercial agent with the same headquarters. On January 1, 1903, he was promoted to general eastern freight agent, with headquarters at New York, and on April 1, 1906, he was appointed assistant general freight agent, with headquarters at Chicago. Mr. Booth was advanced to general freight agent, with headquarters at Detroit, Mich., on November 15, 1909, and on May 1, 1920, he was promoted to freight traffic manager, with the same headquarters. In October, 1929, he was further advanced to traffic manager, with headquarters as before at Detroit, the position he held at the time of his death.

Patrick Henry Houlahan, retired general manager of the Toledo, St. Louis & Western and the Chicago & Alton (now the Alton) died in Chicago on February 11. Mr. Houlahan was born at Ottawa, Ill., on March 13, 1855, entered railway service in 1867 as a water boy and track hand on the construction of the Ottawa, Oswego & Fox River Valley (now part of the Alton and the Chicago, Burlington & Quincy) and subsequently became a check clerk, station baggage man, ticket agent, brakeman and conductor. In November, 1881 he was appointed an assistant trainmaster on the St. Louis division of the Burlington and three years later he was promoted to trainmaster. From May to November in 1886, he served as master of transportation of the Missouri and Kansas division of the St. Louis, Arkansas & Texas (now part of the St. Louis Southwestern) and on the latter date he became trainmaster on the Hannibal & St. Joseph (now part of the Burlington), later being promoted to assistant superintendent and superintendent. In December, 1904, he went with the Toledo, St. Louis & Western as general superintendent. On January 1, 1908, when the Toledo, St. Louis & Western was merged with the Chicago & Alton, he was appointed general superintendent of both roads, and on July 1, 1908, he was promoted to general manager, the position he held at the time of his retirement on March 13, 1910.